
TIGARD CITY COUNCIL
MEETING

MAY 27, 2003 6:30 p.m.

TIGARD CITY HALL
13125 SW HALL BLVD
TIGARD, OR 97223



PUBLIC NOTICE:

Anyone wishing to speak on an agenda item should sign on the appropriate sign-up sheet(s). If no sheet is available, ask to be recognized by the Mayor at the beginning of that agenda item. Visitor's Agenda items are asked to be two minutes or less. Longer matters can be set for a future Agenda by contacting either the Mayor or the City Manager.

Times noted are estimated; it is recommended that persons interested in testifying be present by 7:15 p.m. to sign in on the testimony sign-in sheet. Business agenda items can be heard in any order after 7:30 p.m.

Assistive Listening Devices are available for persons with impaired hearing and should be scheduled for Council meetings by noon on the Monday prior to the Council meeting. Please call 503-639-4171, ext. 2410 (voice) or 503-684-2772 (TDD - Telecommunications Devices for the Deaf).

Upon request, the City will also endeavor to arrange for the following services:

- Qualified sign language interpreters for persons with speech or hearing impairments; and
- Qualified bilingual interpreters.

Since these services must be scheduled with outside service providers, it is important to allow as much lead time as possible. Please notify the City of your need by 5:00 p.m. on the Thursday preceding the meeting by calling: 503-639-4171, ext. 2410 (voice) or 503-684-2772 (TDD - Telecommunications Devices for the Deaf).

SEE ATTACHED AGENDA

A G E N D A
TIGARD CITY COUNCIL MEETING
MAY 27, 2003

6:30 PM

- STUDY SESSION
 - > UPDATE ON THE RANDALL GRANT PROGRAM
 - City Administration Staff
 - > DISCUSSION OF PARKS FEES AND CHARGES
 - Public Works Staff
- EXECUTIVE SESSION: The Tigard City Council may go into Executive Session. If an Executive Session is called to order, the appropriate ORS citation will be announced identifying the applicable statute. All discussions are confidential and those present may disclose nothing from the Session. Representatives of the news media are allowed to attend Executive Sessions, as provided by ORS 192.660(3), but must not disclose any information discussed. No Executive Session may be held for the purpose of taking any final action or making any final decision. Executive Sessions are closed to the public.

7:30 PM

1. BUSINESS MEETING
 - 1.1 Call to Order - City Council & Local Contract Review Board
 - 1.2 Roll Call
 - 1.3 Pledge of Allegiance
 - 1.4 Council Communications & Liaison Reports
 - 1.5 Call to Council and Staff for Non-Agenda Items
2. VISITOR'S AGENDA (Two Minutes or Less, Please)
3. CONSENT AGENDA: These items are considered to be routine and may be enacted in one motion without separate discussion. Anyone may request that an item be removed by motion for discussion and separate action. Motion to:
 - 3.1 Approve Council Minutes for April 22, 2003

- 3.2 Local Contract Review Board
 - a. Award the contract for the construction of Street and Storm Drainage Improvements on Walnut Terrace to D&D Concrete and Utilities
 - Consent Agenda - Items Removed for Separate Discussion: Any items requested to be removed from the Consent Agenda for separate discussion will be considered immediately after the Council has voted on those items which do not need discussion.
4. DISCUSSION WITH STATE SENATOR GINNY BURDICK AND STATE REPRESENTATIVE MAX WILLIAMS
 - a. Comments by Senator Burdick and Representative Williams
 - b. Council Discussion
5. CONTINUE DISCUSSION OF THE STREET MAINTENANCE FEE
 - a. Staff Report: Engineering Staff
 - b. Council Discussion
6. UPDATE ON GREENSPACES PROGRAM BY METRO PRESIDENT DAVID BRAGDON
7. CONSIDER THE FANNO CREEK PARK MASTER PLAN
 - a. Staff Report: Public Works Staff
 - b. Council Discussion
 - c. Council Consideration: Motion to approve the Fanno Creek Park Extension Master Plan
8. PUBLIC HEARING (QUASI-JUDICIAL) – SW MAPLELEAF AND SW OAK WAY PUBLIC RIGHT OF WAY VACATION (VAC2002-00002)

The Tigard City Council will consider the proposed vacation involving a 26,258 square foot portion of SW Mapleleaf Street that lies to the south of SW Locust Street between SW Lincoln Street and SW 90th Avenue; and a 9,716 square foot portion of right-of-way formerly known as SW Oak Way that lies south of SW Mapleleaf Street between SW Lincoln Street and SW 90th Avenue.

The reason for the vacation request is to allow the Tigard-Tualatin School District to replace the existing Metzger Elementary School with a new school at the same location through a Conditional Use approval. There are no existing utilities in or along either right-of-ways to be vacated.

The request was filed with the City on December 31, 2002 and initiated by the City Council at the request of the applicant on April 8, 2003. Any interested person may appear and be heard for or against the proposed vacation of said Mapleleaf Street/Oak Way Public Right-of-Way Street Vacation. Any written objections or remonstrance's shall be filed with the City Recorder by 7:30 PM on May 27, 2003.

- a. Open Public Hearing
- b. Declarations or Challenges
- c. Staff Report: Community Development Department
- d. Public Testimony
 - Proponents
 - Opponents
 - Rebuttal
- e. Staff Recommendation
- f. Council Questions
- g. Close Public Hearing
- h. Council Consideration: Ordinance No. 03 - _____

9. COUNCIL LIAISON REPORTS

10. NON AGENDA ITEMS

11. EXECUTIVE SESSION: The Tigard City Council may go into Executive Session. If an Executive Session is called to order, the appropriate ORS citation will be announced identifying the applicable statute. All discussions are confidential and those present may disclose nothing from the Session. Representatives of the news media are allowed to attend Executive Sessions, as provided by ORS 192.660(3), but must not disclose any information discussed. No Executive Session may be held for the purpose of taking any final action or making any final decision. Executive Sessions are closed to the public.

12. ADJOURNMENT

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CITY OF TIGARD, OREGON
COUNCIL AGENDA ITEM SUMMARY

ISSUE/AGENDA TITLE Update on the Randall Grant Program

PREPARED BY: Liz Newton DEPT HEAD OK _____ CITY MGR OK _____

ISSUE BEFORE THE COUNCIL

An update on the Randall Funding and Development Grant Program.

STAFF RECOMMENDATION

No action necessary. Information only.

INFORMATION SUMMARY

On April 17, 2001, the City Council authorized staff to issue a Request for Proposals (RFP) for grant funding services. Two responses were received.

On June 12, 2001, the Tigard City Council approved a contract with Randall Funding and Development in the amount of \$68,000 for grant writing services. The contract with Randall held them responsible for obtaining at least \$750,000 in grant approvals allocated to priority areas identified by the city. This guarantee was conditioned on the city authorizing application for and submission of a minimum of \$2,626,000 in grant applications.

A needs assessment was conducted by Randall and City staff in the summer of 2001 to identify the city's funding priorities and some federal grant opportunities. A funding strategy report was issued in the fall that emphasized pursuing grants for the new library, transportation funds, police programs, the downtown, parks and wetlands, and youth programs.

After the incidents of September 11, 2001, the focus on disbursement of federal grant funds shifted quickly to Homeland Security, mostly for fire departments and similar first responders. In fact many of the grants our police programs would have been eligible for were put on hold. In addition, federal transportation dollars in the Portland Metropolitan area are funneled through Metro through a competitive process Tigard already participates in. Funds for the library would primarily be provided through foundation grants and the bond measure had to be approved before foundations would consider grant requests for additional funding for the library.

During the 2002-03 fiscal year, Randall Funding and Development sent weekly grant alerts and although a handful of opportunities were identified, no grants were submitted for various reasons. When the contract expired, Randall Funding and Development agreed to provide services for the current fiscal year at no charge to the city. In the current fiscal year, Randall has applied for and the city received \$10,667.99 from the Department of Justice for reimbursement of half the cost of bulletproof vests. Randall has just submitted a grant application on behalf of the city of \$43,244.13 for the police department for HAZMAT response equipment that was included in the Washington County Needs Assessment. In addition, Randall is preparing

another grant for the police department for \$105,698 for forensic video assessment equipment and AED's for each police vehicle.

Staff has contacted Randall to determine what assistance they may want to provide the city in the coming fiscal year. Randall executives have expressed an interest in continuing to provide the city assistance. Staff is waiting for a written proposal.

OTHER ALTERNATIVES CONSIDERED

None

VISION TASK FORCE GOAL AND ACTION COMMITTEE STRATEGY

N/A

ATTACHMENT LIST

None

FISCAL NOTES

No cost associated with this report.

AGENDA ITEM # _____
FOR AGENDA OF May 27, 2003

CITY OF TIGARD, OREGON
COUNCIL AGENDA ITEM SUMMARY

ISSUE/AGENDA TITLE Increase Parks Fees and Charges

PREPARED BY Dan Plaza, 2590 DEPT HEAD OK _____ CITY MGR OK _____

ISSUE BEFORE THE COUNCIL

Council consider staff recommendation to increase parks fees and charges.

STAFF RECOMMENDATION

Staff recommends Council review and discuss the parks fees and charges schedule as presented.

INFORMATION SUMMARY

It has been ten years since the application fee and rental rates for park reservations (picnic shelters and fields) have been raised. They were last raised on December 8, 1992 (Council Resolution #92-57). The cumulative CPI has *increased* over thirty-two percent since then. Current revenues generated by fees and charges cover *less than a third* of the program costs. Approximately \$69,000 needs to be recovered to pay for current costs associated with the program (see attached).

Currently, Tigard receives approximately \$24,700 from picnic fees and charges--\$14K from non-resident fees and \$10K from resident/non-profit fees. Approximately \$11,654 is derived from small groups (usually families), \$8,481 is derived from medium sized groups, and \$4,565 is derived from large groups (usually companies). If annual CPI adjustments were made over the ten-year period 1992-2003, fees and charges would have generated \$32,604 in 2002.

A survey of local area agencies fees and charges was conducted (see attached). Tigard's rental rates were in the mid-range in the resident group category-under 50 people. In all other categories (50+, 100+ and 200+ people) Tigard's rental rates were the *highest* for both resident and non-resident users.

The goal is to *recover approximately 70%* of the administrative and operational costs of the picnic shelter and fields reservation program while maintaining a 50% *reduced* hourly rate for resident users. Due to the magnitude of this rate adjustment, necessitated by not adjusting the schedule since 1992, it is recognized that the change will have to be accomplished over a three-year period (1/1/04-1/1/06).

The new schedule will *increase* revenues to \$36,550 in the first year, to \$42,705 in the second year and to \$47,225 in the third year.

Should the Council have no objections to the recommended rate schedule on May 27, the proposed rate schedule will be incorporated into the Finance Fees and Charges Resolution to be presented to Council on June 24.

OTHER ALTERNATIVES CONSIDERED

Don't consider the rate schedule

ATTACHMENT LIST

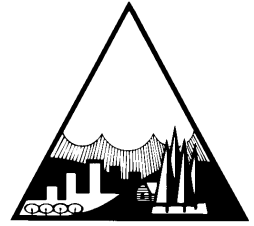
Dan Plaza memo to Ed Wegner re: Recommendation to Increase Fees and Charges, dated May 12, 2003

FISCAL NOTES

The costs to run the parks reservation program is approximately \$69,000 per year. The recommended fee schedule will recover approximately 70% of the cost after three years. No new funds are needed to implement the rate increase.

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MEMORANDUM



TO: Ed Wegner

FROM: Dan Plaza

RE: Recommendation to Increase Fees and Charges

DATE: May 20, 2003

Background

It has been ten years since the application fee and rental rates for park reservations (picnic shelters and fields) have been raised. They were last raised on December 8, 1992 (Council Resolution #92-57). The cumulative CPI has *increased* over thirty-two percent since then. Current revenues generated by fees and charges cover *less than a third* of the program costs. Approximately \$69,000 needs to be recovered to pay for current costs associated with the program (see attached).

In the future, increases to the fee schedule will be considered on a yearly basis. Yearly, nominal increases that are in response to inflationary factors, are far more acceptable than playing catch-up after a number of years of not increasing the rate schedule in response to inflationary factors.

Currently, Tigard receives approximately \$24,700 from picnic fees and charges--\$14K from non-resident fees and \$10K from resident/non-profit fees. Approximately \$11,654 is derived from small groups (usually families), \$8,481 is derived from medium sized groups, and \$4,565 is derived from large groups (usually companies). If annual CPI adjustments were made over the ten-year period 1992-2003, fees and charges would have generated \$32,604 in 2002.

A survey of local area agencies fees and charges was conducted (see attached). Tigard's rental rates were in the mid-range in the resident group category-under 50 people. In all other categories (50+, 100+ and 200+ people) Tigard's rental rates were the *highest* for both resident and non-resident users.

Current Fees and Charges Schedule

Administration Fee	\$10.00
Resident/Non-Profit Rates	
Groups up to 50	\$6.00/hour
51-100	\$8.00/hour
101-150	\$15.00/hour
151-200	\$20.00/hour
201-250+	\$25.00/hour
Non-Resident Rates (double the resident fee)	
Groups up to 50	\$12.00/hour
51-100	\$16.00/hour
101-150	\$30.00/hour
151-200	\$40.00/hour
201-250+	\$50.00/hour
Soccer/fields Rentals	
Resident/Non-Profit	\$4.00/hour
Non-Resident	\$8.00/hour

The Goal

The goal is to *recover approximately 70%* of the administrative and operational costs of the picnic shelter and fields reservation program while maintaining a 50% *reduced* hourly rate for resident users. Due to the magnitude of this rate adjustment, necessitated by not adjusting the schedule since 1992, it is recognized that the change will have to be accomplished over a three-year period (1/1/04-1/1/06).

Recommended Fees and Charges Schedule

Because fees and charges have not been increased in over 10-years, it is recommended that Council approve the following application fee and rental schedule which will *accomplish* the goal. It should be noted that the new, proposed hourly rate schedule charges Tigard residents 50% *less* than non-residents. If the recommended schedule is approved, Tigard's rates will remain the highest for both resident and non-resident rates.

Further, this schedule initiates rate increases at the beginning of each calendar year rather than the beginning of each fiscal year (July 1). By doing this, we will be able to extend the new rates to the reservations made during the "*reservation making season*" which begins in

the spring of each year. This will allow us to receive increased revenues at an earlier date each year and it will also negate a situation whereby different rates would be charged during the same year, for example, charging new rates at the beginning of the new fiscal year on July 1.

Once the three-year cost recovery schedule phase-in is accomplished (see attached), it is anticipated that future rate adjustments would be tied to annual inflationary factors, and thus be nominal. An additional benefit of the three-year phase-in is it allows staff to analyze if rental rates are negatively affecting the number of yearly reservations. It is anticipated that an annual analysis of this factor would be completed, and if it is apparent that the rate schedule is negatively affecting total rental opportunities it may be necessary to *amend* the goal of 70% cost recovery.

The following table indicates the proposed rate changes over the next three-years. This rate table maintains the principle of *reduced* rates for resident users. This new schedule will *increase* revenues to \$36,550 in the first year, to \$42,705 in the second year and to \$47,225 in the third year.

	<u>CURRENT</u>	<u>Effective</u> 1/1/04	<u>Effective</u> 1/1/05	<u>Effective</u> 1/1/06
<u>Administrative/Application Fee</u>				
a) Resident/Non-profit	\$10.00	\$20.00	\$25.00	\$30.00
b) Non-resident	\$10.00	\$50.00	\$60.00	\$75.00
<u>Picnic Shelter Rental</u>				
		16% increase	16% increase	4% increase
1) Resident & Non-profit Rates				
Groups up to 50	\$6.00/hour	\$7.00	\$8.00	\$8.50
51-100	\$8.00/hour	\$9.00	\$10.50	\$11.00
101-150	\$15.00/hour	\$17.50	\$20.00	\$21.00
151-200	\$20.00/hour	\$23.00	\$26.50	\$27.50
201-250+	\$25.00/hour	\$29.00	\$33.00	\$34.00
2) Non-Resident Rates				
Groups up to 50	\$12.00/hour	\$14.00	\$16.00	\$16.50
51-100	\$16.00/hour	\$18.50	\$21.00	\$22.00
101-150	\$30.00/hour	\$35.00	\$40.00	\$41.50
151-200	\$40.00/hour	\$46.50	\$53.00	\$55.00
201-250+	\$50.00/hour	\$58.00	\$66.00	\$68.50
<u>Soccer/field Rentals</u>				
Resident	\$4.00/hour	\$4.50	\$5.50	\$6.00
Non-Resident	\$8.00/hour	\$9.00	\$10.50	\$11.00

Comparative Analysis	Current	`04	`05	`06
<u>Resident under 50 people</u>				
Application fee	\$10.00	\$20.00	\$25.00	\$30.00
2 hour rental	\$12.00	\$14.00	\$16.00	\$17.00
Total	\$22.00	\$34.00	\$41.00	\$47.00
<u>Non-Resident under 50 people</u>				
Application fee	\$10.00	\$50.00	\$60.00	\$75.00
2 hour rental	\$24.00	\$28.00	\$32.00	\$33.00
Total	\$34.00	\$78.00	\$92.00	\$108.00
<u>Resident over 100 people</u>				
Application fee	\$10.00	\$20.00	\$25.00	\$30.00
2 hour rental	\$30.00	\$35.00	\$40.00	\$42.00
Total	\$40.00	\$55.00	\$65.00	\$72.00
<u>Non-Resident over 100 people</u>				
Application fee	\$10.00	\$50.00	\$60.00	\$75.00
2 hour rental	\$60.00	\$70.00	\$80.00	\$83.00
Total	\$70.00	\$120.00	\$140.00	\$158.00
<u>Resident over 200 people</u>				
Application fee	\$10.00	\$20.00	\$25.00	\$30.00
2 hour rental	\$50.00	\$58.00	\$66.00	\$68.00
Total	\$60.00	\$78.00	\$91.00	\$98.00
<u>Non-Resident over 200 people</u>				
Application fee	\$10.00	\$50.00	\$60.00	\$75.00
2 hour rental	\$100.00	\$116.00	\$132.00	\$137.00
Total	\$110.00	\$166.00	\$192.00	\$212.00

Attachments:

- Administrative/Operational Costs
- Survey
- Three-Year Cost Recovery Schedule

ADMINISTRATIVE/OPERATIONAL COSTS

Costs

Clerical: running the reservation system, processing payments, customer contacts, etc	\$13,264
Reservation system software, licenses, etc	\$2,500
Field staff set up reservations, cleaning facilities after reservations	\$17,082
Materials and supplies, bags, cleansers	\$750
Equipment/vehicles used for reservations	\$2,160
Insurance	\$2,654
Division overhead 5%-Mgr, 5%-Supvr	\$8,078
Facility depreciation/replacement - construction growth of 1% annually	\$18,278
sub-total	\$64,766
Department overhead - 5.79 of direct costs	\$3,750
TOTAL COSTS	\$68,516

SURVEY				
		<i>Resident</i>	<i>Non-Resident</i>	<i>Adm/App Fee</i>
Group Size 1-50				
Hillsboro		4.00	6.00	
North Clackamas		n/a	n/a	100/Alcohol
Lake Oswego		10.00	10.00	25/50
Oregon City		10.00	10.00	
Tigard		6.00	12.00	10
Tualatin		5.00-10.00	10.00	
Wilsonville		6.00	10.00	100/200
West Linn		2.00	6.00	
Group Size 51-100				
Hillsboro		5.00	7.50	
North Clackamas		5.00	6.25	100/Alcohol
Lake Oswego		10.00	10.00	25/50
Oregon City		13.00	13.00	
Tigard		15.00	30.00	10
Tualatin		5.00-10.00	10.00	
Wilsonville		6.00	10.00	100/200
West Linn		4.00	10.00	
Group Size 100+				
Hillsboro		n/a	n/a	
North Clackamas		16.00	19.00	
Lake Oswego		n/a	n/a	
Oregon City		16.25	16.25	25/50
Tigard		25.00	50.00	10
Tualatin		5.00-10.00	20.00	
Wilsonville		7.50	12.50	100/200
West Linn		7.50	18.75	
NOTE: THPRD does not have a reservation program. Shelters and fields are on a first come - first served basis				

THREE-YEAR COST RECOVERY SCHEDULE

				Year One		Year Two		Year Three	
	Current Rate	# of Reservations (2002)	Total Revenue for 2002	Increase Application Fee and Increase Hourly Rate	Potential Revenue	Increase Application Fee and Increase Hourly Rate	Potential Revenue	Increase Application Fee and Increase Hourly Rate	Potential Revenue
Application Fee - Resident/Non-Profit	10.00	285	\$2,850	20.00	\$5,700	25.00	\$7,125	30.00	\$8,550
Application Fee - Non Resident	10.00	153	\$1,530	50.00	\$7,650	60.00	\$9,180	75.00	\$11,475
Total Application Fees		438	\$4,380		\$13,350		\$16,305		\$20,025
Hourly Rental Rate - Resident/Non-Profit	varies by group size	285	\$9,000	16%	\$10,440	32%	\$11,880	36%	\$12,240
Hourly Rental Rate - Non-Resident	varies by group size	153	\$11,000	16%	\$12,760	32%	\$14,520	36%	\$14,960
Total Hourly Rate Fees		438	\$20,000		\$23,200		\$26,400		\$27,200
Grand Total		438	\$24,380		\$36,550		\$42,705		\$47,225

COUNCIL MINUTES
TIGARD CITY COUNCIL MEETING
April 22, 2003

Council President Dirksen called the meeting to order at 6:30 p.m.

Council Present: Council President Dirksen and Councilors Moore, Sherwood, and Wilson

EXECUTIVE SESSION: Not held

- STUDY SESSION

Administrative Items:

- PUD letter discussion. This discussion was a continuation of the discussion from the April 8 Council meeting. The Oregon Office of Energy Report was distributed to the Council. No further follow up at this time.
- City Manager review process, schedule – postponed until the return of the Mayor
- Tour of City facilities for Council members – tours will be arranged during the day for Councilors Sherwood and Wilson, who said they would like to connect with employees while doing their everyday work assignments. Staff will schedule two department tours per month over the next three months.
- Balloon Festival update – Councilor Moore advised he met with Event Coordinator Bruce Ellis last week. Mr. Ellis is planning to reestablish the event next year and is in the process of looking for sponsors including radio and television stations. Councilor Moore will meet with Mr. Ellis in early summer to discuss how the Festival activities can be split between the field activities and the balloon events with different organizations or individuals taking the lead. Committees can then be set up for different aspects of the event.
- Meeting date/time with Washington County Board – the Board suggested noon, July 22, Hillsboro; City staff suggested July 15 or August 19. City Manager Monahan will check with the County to determine if a late afternoon meeting in a neutral location (i.e., Beaverton) can be set with the Board.
- Earth Day Activities – A flyer for Solv-It volunteer opportunities in Tigard was distributed. Activities are scheduled for several Tigard locations on Saturday, April 26.
- Street Maintenance Fee Public Hearing – Council held a brief discussion noting that public testimony will be limited to five minutes. The Mayor will not be present, so Council President Dirksen suggested that the Council wait until the Mayor returns to vote on this matter. This will also give the Council time to assimilate the testimony presented. Testimony from Mark Padgett, Planning Commission Chair, was distributed to the Council.

- City Manager Monahan reminded Council of the Beaverton Mayor's Breakfast – May 7, 7 to 9:15 a.m. – Greenwood Inn
- Budget Committee Schedule was distributed to the Council.
- Community Outreach meetings:
Thursday, April 24, Chief Bill Dickinson will hold his first of four community meetings. The meeting will be held at Templeton Elementary School beginning at 7 p.m. Councilor Sydney Sherwood will represent Council. The meeting schedule and the council members planning to attend are as follows:
 - April 24, Templeton Elementary, Councilor Sherwood
 - May 1, CF Tigard Elementary, Mayor Griffith
 - May 8, Mary Woodward Elementary, Councilor Wilson
 - May 15, Metzger Elementary, Councilor Moore
- Library – Groundbreaking – May 17, 10 a.m.
- House Bill 3500 (Information distributed to Council)
- Metro Auditor Request (Information distributed to Council)
- Commuter Rail Information was distributed.
- Council received an updated Council Liaison appointment matrix. City Recorder will add the Highway 217 Committee to the matrix – Council Moore is the liaison to this Committee.

Study Session ended at 7:12 p.m.

1. BUSINESS MEETING

- 1.1 Council President Dirksen called the Council and Local Contract Review Board meeting to order at 7:30 p.m.
- 1.2 Roll Call: Council President Dirksen; Councilors Moore, Sherwood & Wilson
- 1.3 Pledge of Allegiance
- 1.4 Council Communications & Liaison Reports: See Item No. 7
- 1.5 Call to Council and Staff for Non-Agenda Items: None

2. PROCLAMATION

- 2.1 Proclaim April 22, 2003, as Arbor Day

Council President Dirksen issued the Arbor Day Proclamation

3. VISITOR'S AGENDA

Mr. G.E. McAdams, 13420 SW Brittany Drive, Tigard, asked questions about visitors' agenda and public hearing testimony time limits. Visitor agendas are scheduled during business meetings (2nd and 4th Tuesdays). Public hearing testimony time limits are at the discretion of the presiding official, who often consults with the Council about whether to set limits on testimony. If the Manager

is asked about agenda item scheduling for a Council meeting, he consults with the Mayor or Council President.

4. CONSENT AGENDA: Motion by Councilor Sherwood, seconded by Councilor Wilson, to adopt the Consent Agenda as follows:
 - 4.1 Approve Council Minutes for February 25, 2003
 - 4.2 Receive and File:
 - a. Council Goal Update
 - 4.3 Approve an Amendment to the Washington County Cooperative Library Services Public Library Services Agreement
 - 4.4 Approve an Amendment to the Washington County Inter-Library Information Network Agreement
 - 4.5 Local Contract Review Board:
 - a. Approve payment to Centex Homes for costs incurred to oversize water lines
 - b. Award contract for engineering/hydro geological services related to aquifer storage and recovery to Groundwater Solutions, Inc.
 - c. Approve the purchase of three marked police vehicles

The motion to approve the Consent Agenda was approved by a unanimous vote of Council present:

Council President Dirksen	-	Yes
Councilor Moore	-	Yes
Councilor Sherwood	-	Yes
Councilor Wilson	-	Yes

5. PUBLIC HEARING REGARDING A STREET MAINTENANCE FEE
 - a. Council President Dirksen opened the public hearing.
 - b. City Engineer Duenas presented the staff report. Highlights of his presentation were shown on PowerPoint slides, which are file with the City Recorder. The proposed street maintenance fee is a monthly user fee based on trips generated by land uses, which is typically collected through utility bills. The fee is designated for use in the maintenance of the transportation system.

The public hearing was closed.

Council members commented on the testimony received about the economy and other issues brought to their attention. It was determined that by Friday, April 25, Council members will submit questions to staff. Staff will

respond to the questions and the Council will discuss this information on May 13. A final decision will be scheduled for Council consideration on May 27.

c. Public Testimony

- Paul Owen, 10335 SW Highland Drive, Tigard, who resides in Summerfield and a member of the Transportation Financing Strategies Task Force, testified in support of the street maintenance fee. Mr. Owens noted that a number of people in the audience were from Summerfield. He added that Mr. Paul Hunt, former City Council member, advised he was in favor of the street maintenance fee as it's now proposed to the Council. Mr. Owens submitted a letter from Frank and LeMae Bates in support of the fee.
- Mr. Jack Reardon, 9585 SW Washington Square Drive, Tigard, representing the Washington Square Shopping Center, testified in opposition to the Street Maintenance Fee. A letter outlining his basic objections was submitted to the Council and is on file with the City Recorder. He cited unfavorable economic times for businesses and also noted that Washington Square tenants pay for private street maintenance on the Washington Square property. Mr. Reardon objected to the formula, which has residents paying 25% of the fees assessed with businesses paying 75%.
- Mr. Charles Schneider, 11119 SW Tigard Street, Tigard, was opposed to the fee. He said this was not a fee – it was a tax. He referred to recent construction work on Walnut and Tiedeman and the detour of traffic during the construction that caused wear and tear on neighborhood streets. Mr. Schneider commented that many commercial vehicles (buses, delivery trucks, taxi's, etc.) use the streets, but would not be paying this fee. He objected to multi-family residences paying less than single-family. Mr. Schneider noted that when utility contractors make street cuts to do their work, they often do not make repairs that will last – doing just enough to have the repair hold up for the required one-year warranty.
- Gene McAdams, 13420 SW Brittany Drive, Tigard, said he was critical of the fee, but not necessarily against it. He objected to the staff report stating the gas tax fee had not increased in a decade and noted the amount of revenue had increased by more than 60% since 1991. He noted concerns with the priority given to street maintenance during the

budget process and also questioned the amount of the fee collected that would be used for administrative expenses. Mr. McAdams noted issues with an interfund transfer.

City Engineer Duenas noted that 10% of the fee collected would be for engineering expenses. The street maintenance fee would be dedicated to maintenance.

Mr. McAdams requested that the ordinance set the fee, rather than having the fee set by resolution. A public hearing should be before the fee could be adjusted.

Mr. McAdams objected to the right-of-way maintenance on arterial and collector streets only. He said the additional manpower and equipment needs should be taken into consideration before implementing a maintenance program.

- Dan Murphy, 12345 SW Main Street, Tigard, representing the Tigard Area Chamber of Commerce, advised that the Business Advocacy Committee and the Board of Directors did not support the maintenance fee. This fee should be labeled a "tax" and approved by a vote of the people.
- Joe Gilliam, 30300 SW Parkway Avenue, Wilsonville, Oregon 97070, Oregon Grocery Association, said this was a tax not a fee. The perfect solution would be for maintenance needs to be funded by gas tax revenue; however, the voters have not approved any increases to this tax. He questioned the credibility of the resources used to establish the fee. He said the ITE Manual supplies incomplete data, which is based on a survey of only two stores. He said that local data should be used to calculate the fee. He advised that grocery stores generally operate on a 1% margin; therefore \$1.5 million must be generated in grocery store sales in order to break even on a fee assessment of \$15,000.
- Brian Kovacich, Embassy Suites Hotel, 9000 SW Washington Square Road, Tigard, asked the Council take more time to consider whether to implement the Street Maintenance Fee. He said many businesses were surprised that such a fee was being considered. He noted concerns about imposing this fee during these difficult economic times. He would like an opportunity to review how these fees are being assessed. He noted the hotel industry currently generates 7% room tax payable to Washington County. Mr. Kovacich advised he would not be in favor of the fee if it's

skewed toward businesses paying more than residents. He said he would be willing to pay for street maintenance on his property tax statement.

City Engineer Duenas, in response to a question from Mr. Kovacich, said he will contact Mr. Kovacich with details about the proposed assessment for hotels.

- Cleon Cox III, 13580 SW Ash Avenue, Tigard, advised he is opposed to the fee and said it's a tax, not a fee. He referred to a previous request he to Council to have police increase patrols and issue tickets to traffic speeders rather than install speed humps. Mr. Cox referred to the current economic conditions and suggested that expenditure cuts be made. He said he considered this fee to be anti-business.

Councilor Moore referred to the upcoming Budget Committee meetings and invited Mr. Cox to attend these meetings so he could become aware of where the City is making cuts.

- Devin Kidman, 7150 SW Hampton Street, Tigard, The People Group, noted concerns about this expense for business owners. He asked Council consider how this would affect businesses during the current difficult economic climate.
- Valorie Westlund, 14800 SW Kenton Drive, Tigard, commented that the street maintenance fee has been under discussion for at least the last year and a half. She said a street maintenance fee is needed, adding that the value of maintenance is to avoid more expensive repairs later. She empathized with businesses and suggested that the fee distribution formula be reviewed.
- Mary Kaufman, 14425 SW McFarland, Tigard, resident and representative of the lodging industry, noted that the Tigard fee schedule, as proposed, is not equitable. This is an unbelievably difficult time for business and it is not the right time to implement this fee.
- John Skourtes, owner of six warehouses in Tigard, advised that all of his tenants are "barely hanging in there" because of the poor economy. He suggested that the City ask voters to approve a bond measure.

City Engineer Duenas explained that maintenance expenses are ongoing and a bond measure will not address the continuing maintenance needs. The Transportation Financing Strategies Task Force considered a number of financing options.

d. Staff Recommendation

Staff recommended the Council consider the testimony and information it received tonight and then provide direction to staff on whether to proceed with developing an ordinance to implement a street maintenance fee.

e. Council President Dirksen closed the public hearing.

6. CONSIDER AN ORDINANCE REVISING CHAPTER 2.12 OF THE TIGARD MUNICIPAL CODE PERTAINING TO A PARK AND RECREATION BOARD

City Manager Monahan presented the staff report. The proposed revisions to TMC 2.12 were proposed as a result of 2003 Council Goal No. 4. A section of that goal is to "Explore the creation of a Park and Recreation Advisory Board." TMC 2.12 provides for such a board; however, the board has been inactive for several years.

Motion by Councilor Moore, seconded by Councilor Sherwood, to adopt Ordinance No. 03-02.

ORDINANCE NO. 03-02 – AN ORDINANCE AMENDING TIGARD MUNICIPAL CODE, CHAPTER 2.12, REGARDING THE PARK AND RECREATION BOARD

The motion was approved by a unanimous vote of Council present:

Council President Dirksen	-	Yes
Councilor Moore	-	Yes
Councilor Sherwood	-	Yes
Councilor Wilson	-	Yes

7. COUNCIL LIAISON REPORTS

Councilor Sherwood reported on the Arbor Day activities that took place earlier in the day at Durham Elementary School. She had several items to give to the Mayor including a Tree City USA flag.

Councilor Dirksen announced a Downtown Task Force Meeting scheduled for Thursday, April 24, 2003, 6:30 p.m. at Town Hall.

8. NON-AGENDA ITEMS: None
9. EXECUTIVE SESSION: Not held
10. ADJOURNMENT: 9:27 p.m.

Attest:

Catherine Wheatley, City Recorder

Mayor, City of Tigard

Date: _____

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AGENDA ITEM # _____
FOR AGENDA OF May 27, 2003

CITY OF TIGARD, OREGON
COUNCIL AGENDA ITEM SUMMARY

ISSUE/AGENDA TITLE Award of Contract for the Construction of Walnut Terrace – Street & Storm Drainage Improvements

PREPARED BY: Vannie Nguyen DEPT HEAD OK: Agustin P. Duenas CITY MGR OK: Bill Monahan

ISSUE BEFORE THE COUNCIL

Shall the Local Contract Review Board approve the contract award for the construction of Walnut Terrace – Street & Storm Drainage Improvements?

STAFF RECOMMENDATION

Staff recommends that the Local Contract Review Board, by motion, approve the contract award to **D&D Concrete & Utilities** in the amount of **\$138,279.25**.

INFORMATION SUMMARY

Walnut Terrace, classified as a local street, runs in an easterly direction approximately 880 feet from 69th Avenue to its terminus at the boundary between City of Tigard and City of Portland. It has a deteriorated 20-foot wide paved surface that only stretches for 150 feet from the intersection at 69th Avenue. The entire remaining length of the street consists of gravel at varying widths. There are no existing curbs or sidewalk on the street.

Because of a lack of standard drainage facilities in the street, property owners have installed non-standard catch basins and pipes on both sides of the street to alleviate flooding problems that occur almost every year.

The project proposes to pave the entire street, widen the street to a width of 28 feet, install curb on both sides, and install a concrete driveway apron and driveway transition for each property. This project also proposes to install a drainage system that includes 540 feet of 15-inch storm mainline and 4 catch basins to serve as an intercept for all existing roof drains and non-abandoned pipes.

The project was advertised for bids on April 28, 2003. The bid opening was conducted on May 12, 2003 and the bid results are:

D&D Concrete & Utilities	Tualatin, OR	\$138,279.25
CR Wood Trucking	Sherwood, OR	\$138,795.40
Wayne Jeskey Construction	Clackamas, OR	\$151,982.00
Canby Excavating	Canby, OR	\$152,571.40
Kerr Contractors	Tualatin, OR	\$157,046.20
Parker Northwest Paving	Oregon City, OR	\$157,387.65
CivilWorks	Vancouver, WA	\$160,363.00

Nutter Corporation
Engineer's Estimate

Vancouver, WA

\$167,450.90
\$136,900

Based on the bids submitted, the lowest responsive bid of \$138,279.25 submitted by D&D Concrete & Utilities appears to be reasonable. Staff recommends approval of the contract award to this lowest bidder.

OTHER ALTERNATIVES CONSIDERED

N/A

VISION TASK FORCE GOAL AND ACTION COMMITTEE STRATEGY

This project meets the Tigard Beyond Tomorrow Transportation and Traffic Goals of "Improve Traffic Safety".

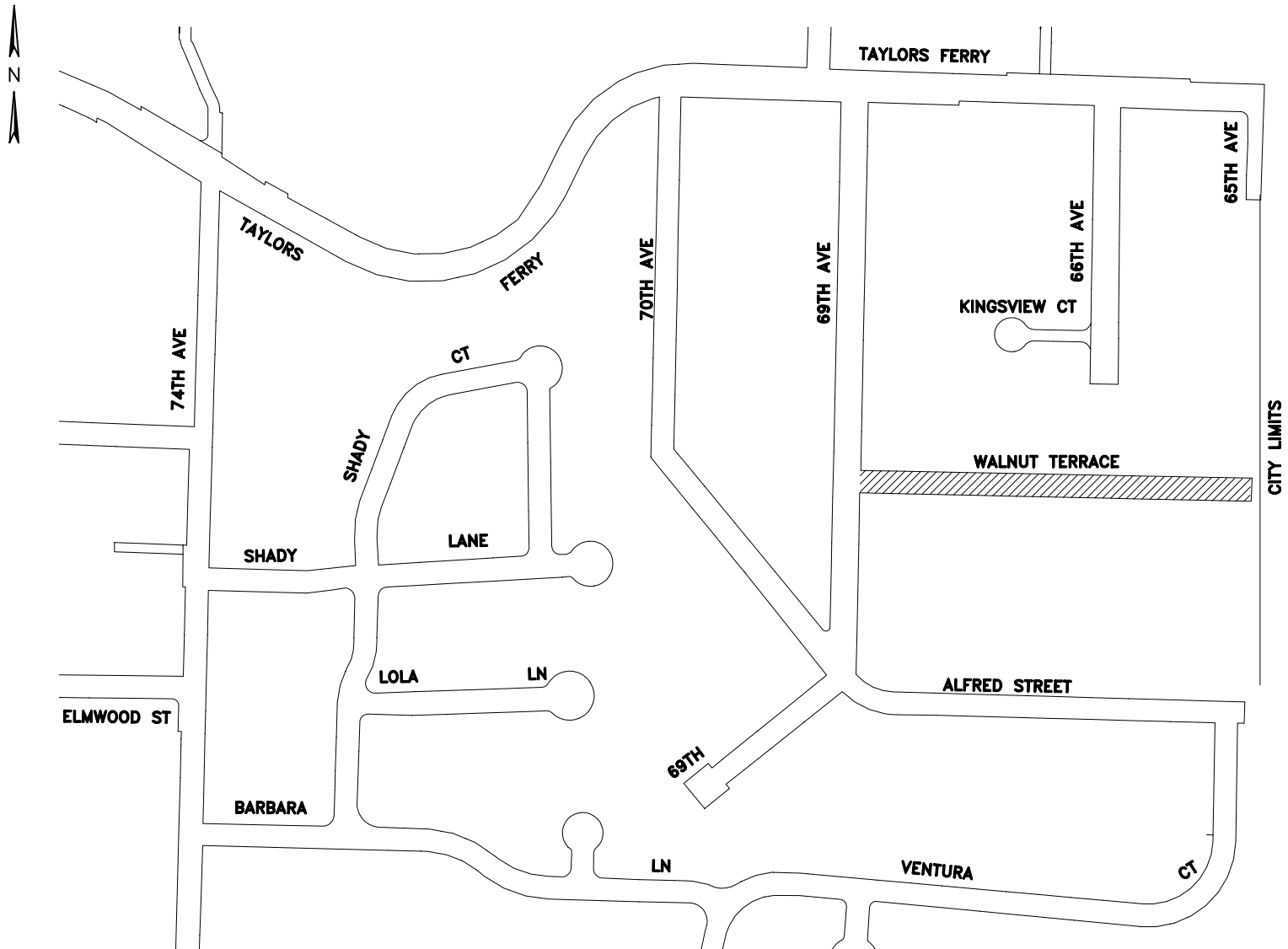
ATTACHMENT LIST

Project location map

FISCAL NOTES

This project is funded from the State Gas Tax fund in the amount of \$60,000 in the FY 2002-03 CIP. This project is also proposed to be funded from the State Gas Tax fund and Storm Drainage fund in the amount of \$40,000 and \$45,000 respectively in the FY 2003-04 CIP. The total amount of \$145,000 is sufficient to award the contract of \$138,279.25 to D&D Concrete & Utilities.

**WALNUT TERRACE
STREET AND STORM DRAINAGE IMPROVEMENTS
69TH AVE TO CITY LIMITS**



AGENDA ITEM # _____
FOR AGENDA OF May 27, 2003

CITY OF TIGARD, OREGON
COUNCIL AGENDA ITEM SUMMARY

ISSUE/AGENDA TITLE Discussion with State Senator Ginny Burdick and State Representative Max Williams

PREPARED BY: Greer Gaston DEPT HEAD OK _____ CITY MGR OK _____

ISSUE BEFORE THE COUNCIL

A discussion with State Senator Ginny Burdick and State Representative Max Williams on issues of interest to Council.

STAFF RECOMMENDATION

Identify issues of interest or concern for Senator Burdick and Representative Williams.

INFORMATION SUMMARY

The Legislative Assembly convened on January 13, 2003. As long as the Assembly is in session, Senator Burdick and Representative Williams will meet with Council on the 4th Tuesday of each month during the Council business meeting to update Council on legislative activities. A packet of information on pending legislation will be mailed to Council on Friday, May 23.

OTHER ALTERNATIVES CONSIDERED

None.

VISION TASK FORCE GOAL AND ACTION COMMITTEE STRATEGY

Communication Goal #1, Action Committee Strategy: "Encourage public participation through accessibility and education."

FISCAL NOTES

None.

AGENDA ITEM # _____
FOR AGENDA OF May 27, 2003

CITY OF TIGARD, OREGON
COUNCIL AGENDA ITEM SUMMARY

ISSUE/AGENDA TITLE Street Maintenance Fee

PREPARED BY: A.P. Duenas DEPT HEAD OK _____ CITY MGR OK _____

ISSUE BEFORE THE COUNCIL

City Council will consider the information provided to date regarding the proposed Street Maintenance Fee, review the various options available, and provide staff with direction regarding possible implementation of the fee.

STAFF RECOMMENDATION

Staff recommends the Council consider various options on the proposed Street Maintenance Fee and provide staff with direction on possible implementation of the fee.

INFORMATION SUMMARY

On April 22, 2003, a public hearing was held to consider the formation of a Street Maintenance Fee. Staff presented a report describing the need for the fee, the basis for establishment of the fee, and the proposed rates for various land uses. Members of the business community provided testimony regarding concerns about the proposed fee. Citizens also testified for and against the proposed fee. Council submitted a list of questions and reviewed the responses to those questions at the Council meeting on May 13, 2003.

Council indicated that they would decide on a course of action regarding the proposed fee at the May 27, 2003 Council meeting. The following are some options that Council could consider in providing direction to staff:

Option 1: Implement the proposed Street Maintenance Fee with all four elements as recommended by the Transportation Financing Strategies Task Force. Those elements are Street Maintenance, Sidewalk Maintenance, Rights-of-Way Maintenance, and Street Light and Traffic Signal System Maintenance. Direct staff to prepare an ordinance for Council consideration.

Option 2: Implement the Street Maintenance Fee as proposed, but limit the scope to the elements covering Street Maintenance and Street Light and Traffic Signal System Maintenance. This would raise approximately \$1.25 million (instead of the \$1.6 million in the current proposal). The Sidewalk and Rights-of-Way Maintenance could be considered at some future time.

Option 3: Implement the Street Maintenance Fee on a 50-50 basis with the residential and non-residential uses sharing the assessments equally. This option could be with all four maintenance elements, or with two maintenance elements as recommended in Option 2.

Option 4: Implement the Street Maintenance Fee, but adjust the residential share of the burden to be more balanced and less burdensome to the non-residential uses. The current ratio is 28% residential, 72% non-residential. The residential share could be increased to bear a higher percentage of the revenue to be generated.

Option 5: Delay adoption of the fee. Direct the formation of a special committee consisting of some members of the Transportation Financing Strategies Task Force and representatives of the business community to meet and reach consensus on a fee that would be acceptable to the City and the business community. Direct that a report with recommendation be submitted to Council within three or four months after the committee is formed and begins to meet.

OTHER ALTERNATIVES CONSIDERED

None.

VISION TASK FORCE GOAL AND ACTION COMMITTEE STRATEGY

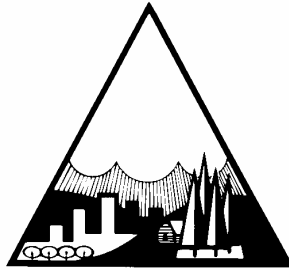
Timely maintenance of public street infrastructure meets the Tigard Beyond Tomorrow goal of *Improve Traffic Safety*. The implementation of the Street Maintenance Fee meets the goal of *Identify and Develop Funding Resources*.

ATTACHMENT LIST

1. Complete Street Maintenance Fee Updated Study Report dated October 4, 2003 with all Appendices as follows:
 - a. Appendix A-1: City of Tigard Street Maintenance needs
 - b. Appendix A-2: Long-Term Program for Annual Street Maintenance
 - c. Appendix B-1: Street Maintenance Element
 - d. Appendix B-2: Right-of-Way Maintenance element
 - e. Appendix B-3: Sidewalk Maintenance Element
 - f. Appendix B-4: Street Light Maintenance Element
 - g. Appendix C: Summary of Rates
 - h. Appendix D: Adjustments for Pass-By Trips
2. Answers to Council Questions for the 5/13/03 Council Meeting Discussion
3. Additional Information provided to City Council from City Engineer
4. Frequently Asked Questions (Street Maintenance Fee)
5. Updated Street Maintenance Needs (Appendix A-1 updated May 2003)

FISCAL NOTES

The implementation of the Street Maintenance Fee as proposed by the Transportation Financing Strategies Task Force would provide a stable source of funding for street maintenance, limited right-of-way maintenance, limited sidewalk maintenance, and street light and traffic signal system energy costs and maintenance.



City of Tigard

13125 SW Hall Blvd.

Tigard, OR 97223

Phone: (503) 639-4171

Fax: (503) 624-0752

Street Maintenance Fee

Updated Study Report

Produced by: Agustin P. Duenas, P.E.
City Engineer
gus@ci.tigard.or.us

October 4, 2002

Updated Street Maintenance Fee Report

October 4, 2002

Background

City Council, through Resolution No. 01-06, formed a Transportation Financing Strategies Task Force to evaluate and recommend to Council feasible alternative funding sources for street maintenance and street expansion needs. The Task Force recommended implementation of a transportation user fee (to be called the Street Maintenance Fee) to provide a stable source of revenue for street maintenance.

The Need for Timely Maintenance

Much of the street infrastructure in the City is old and was not designed for heavy trucks and buses, which accelerate deterioration and greatly increase maintenance requirements. Pavement condition is typically quantified by the Pavement Condition Index (PCI) which rates the pavement according to the extent and severity of distress types present (cracking, rutting, shoving, etc.). Studies have shown that pavement condition worsens at an increasing rate as the pavement gets older. The reason for this is that deterioration begins mostly at the surface, then progresses down into the underlying layers as surface cracks develop. A typical pavement without rehabilitation will experience a 40% drop in PCI during the first 75% of its life and an additional 40% drop during the following 12% of its life. Restoration of pavement near the end of its service life will typically cost 4 to 5 times more than the rejuvenation performed in a timely manner.

The City's Pavement Management System reported a preventative and corrective pavement maintenance backlog of approximately \$2 million dollars as of 1999 (Appendix A-1). About half of this amount was for slurry seals while the remainder was for pavement overlays. Because the street ratings were performed in 1999, these streets have further deteriorated since then should be reassessed within the next year or two. Some of the pavement overlays required are on major streets (such as Gaarde Street), which are already scheduled for reconstruction and widening as part of a major street expansion project. However, the streets that require overlays and slurry seals, but are not programmed as part of a major expansion project, would need to be addressed as part of a long-term program of corrective and preventative pavement maintenance. Because the maintenance backlog cannot be reduced quickly without a large infusion of funding, most of the streets reported as requiring slurry seals are anticipated to require pavement overlay instead by the time the work is actually performed to bring pavement conditions back to acceptable standards. Some streets that needed pavement overlay in 1999 may require reconstruction by the time the funding becomes available to address those streets.

The State Gas Tax Dilemma

As operating costs rise each year, the amount available from the State Gas Tax (which has not been increased in over a decade) for corrective and preventative maintenance has drastically decreased. In FY 2001-02, the amount available for the Street System Program from that tax was \$207,000. The amount set aside for pavement overlays and slurry was \$130,000. This is a dramatic drop from the \$500,000 to \$600,000 available just a few years ago. Within a year or

two, the State Gas Tax would cease to be a viable source of funding for street reconstruction, pavement overlays and slurry seals.

Other City Street-related Maintenance Needs

The City does have street-related maintenance requirements, other than direct maintenance of the pavement and shoulders in a typical City street. These requirements are:

- **Rights-of-Way Maintenance** – This is the maintenance of rights-of way typically behind the sidewalk on collector streets where direct access from the individual lots is not allowed. A good example is Durham Road between Hall Boulevard and Highway 99W. The subdivisions adjacent to the road have internal streets for circulation and with limited access points to Durham Road. The homes typically face away from the street and in most cases have a wall built between the homes and Durham Road. The public right-of-way between the sidewalk and the wall has long been a maintenance problem that under current City code is the responsibility of the homeowner on the other side of the wall. However, these homeowners have double frontage and do not have direct access to the strips adjacent to Durham Road. The City has considered assuming responsibility for these strips, but the lack of funding in the State Gas Tax has not allowed inclusion of this work in the budget. However, this issue continues to arise each year during the budget formulation process.
- **Sidewalk Maintenance** – This is maintenance and repair of sidewalks on the collector system only. It would involve replacement of sidewalk panels that pose a tripping hazard and routine maintenance of the sidewalks on an annual basis.
- **Street Light and Signal System Energy Consumption and Maintenance** – The energy and maintenance charges for both the streetlights and the traffic signal systems are funded out of the State Gas Tax funds. Substitution of other funding sources to pay for these costs would free gas tax funds for other street-related purposes, including potentially the issuance of revenue bonds for the construction of major street improvements.

The Street Maintenance Fee

The Street Maintenance Fee is an alternative source of funds that can be implemented to help protect the City's investment in the street infrastructure. This is a monthly fee based on use of the transportation system, and is typically based on trip generation rates. The fee is charged to each household and business in the City. Other cities in Oregon have successfully implemented this fee and are using the proceeds in their annual street maintenance programs.

Legal Authority for Establishment

Chapter 3, Section 3.32.020 grants City Council the authority to establish, by resolution, fees and charges reasonably related to the City's cost of service. Hence, City Council has the authority to establish the Street Maintenance Fee and can initiate that fee by Council action. However, the initiative process does provide a mechanism for the public to challenge any Council action by referring that action to a vote. The Street Maintenance Fee could be subject to that initiative process.

Maintenance Elements

The following are the maintenance elements and target amounts to be funded through the Street Maintenance Fee:

- Street Maintenance - \$800,000. This amount assumes that most of the funding would be used annually for street maintenance purposes with a small reserve set aside for future reconstruction of certain streets as that reconstruction becomes necessary.
- Rights-of-Way Maintenance - \$270,000
- Sidewalk Maintenance - \$90,000
- Street Light and Traffic Signal System Maintenance - \$445,000
- Total for all four maintenance elements: \$1,605,000

The Street Maintenance and Street Light and Traffic Signal System Maintenance are currently City responsibilities and are the two high priority elements for inclusion in the Street Maintenance Fee. ROW and Sidewalk Maintenance are optional elements that are not currently funded in the City's budget and could be eliminated if desired.

Scope of Work for Each Element

- **Street Maintenance** – Preventative and Corrective Maintenance of all City streets. This includes pothole patching, crack sealing, digouts, pavement overlays, slurry seals, maintenance of street storm drainage facilities, and reconstruction of the street structural section. Attached as Appendix A-2 is a long-term program for annual maintenance of the City streets applying pavement overlays, thin-lift overlays, and slurry seals combined with street reconstruction as needed. This program addresses arterials, collectors, neighborhood routes, and local streets as four separate categories all requiring appropriate levels of maintenance. The arterial and collector streets handle higher volumes of traffic and typically require more attention. The neighborhood routes and local streets handle lesser volumes and would be expected to deteriorate at a slower rate. The revenue to be derived from the Street Maintenance Fee would be directed to implementation of the long-term maintenance program, and to the routine maintenance work performed by the City's street crews.
- **Rights-of-Way Maintenance** – Maintenance of rights-of-way between the sidewalk and the right-of-way line on collector streets with limited direct access from adjacent subdivisions.
- **Sidewalk Maintenance** – Maintenance of sidewalk on collector streets Citywide.
- **Street Light and Signal System Maintenance** – Maintenance and power consumption of all streetlights Citywide. Maintenance and power consumption on all traffic signal systems and crosswalk lighting systems under City jurisdiction.

Methodology for Establishing User Fees

The methodology for establishing user fees for each element of work is as follow:

Data Collection

The first step in the study was to establish an inventory of all of the existing uses on occupied parcels in the City. Basic uses include single-family detached residential, multi-family residential and non-residential. The single-family detached and multi-family dwelling unit inventories were obtained from utility billing data collected by the City's Finance Department.

The data collection for the non-residential group was more difficult and involved the use of digitized aerial photos and site inspections. For example, where office buildings were noted, the overall footprint could easily be digitized from the aerial photo, but a site visit was necessary to determine the number of floors involved. This data may need to be fine-tuned prior to fee implementation.

Trip Generation

The Institute of Transportation Engineers (ITE) *Trip Generation* manual, Sixth Edition, was used to determine trip generation values for each use. The ITE manual is the most commonly used and accepted manual for this purpose and can be consistently applied to each use. ITE trip generation values were used in the development of the Traffic Impact Fee by Washington County and have been used by various cities in the development of street maintenance fees. The City of Tualatin used the fourth generation ITE manual when they developed their street utility fee.

The trip generation values are assigned in accordance with certain variables, such as gross square footage of building, number of dwelling units (DU), number of acres (AC), etc. For the non-residential uses, the most commonly used factor is "number of trips per thousand gross square feet of building per day", or "trips/KSF/day". Unfortunately, not all uses have trip generation factors given in terms of "trips/KSF/day". For instance, Congregate Care Facilities are spoken to in terms of "trips/DU/day" because for that use, the number of dwelling units is the most significant. Another example is Gasoline/Service Station, which is spoken to in terms of "trips/VFP/day", where "VFP" is the number of vehicular fueling positions. Therefore, it is not the size of any building associated with the gas station that determines the number of trips, but rather it is the number of vehicles the station can serve at any one time.

Adjustments for Pass-By Trips

The ITE Trip Generation manual provides rates that basically count the total volume of vehicles entering and exiting a given site. However, there are certain trips that are to destinations that are not typically primary destinations. The Institute of Transportation Engineers (ITE) *Trip Generation Handbook* dated March 2001 divides trips into two major categories: pass-by trips and non-pass-by trips. Non-pass-by trips are further broken down into primary trips and diverted linked trips. Pass-by trips, as defined by the Institute of Transportation Engineers, are trips that "are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or

roadway that offers direct access to the generator. Pass-by trips are not diverted from another roadway.” (Source, *Trip Generation Handbook, An ITE Recommended Practice, March 2001*). An example of this type of trip is a stop at a gas station on the way to another destination.

Primary trips are trips made for the specific purpose of visiting the generator. The stop at the generator is the primary reasons for the trip. The trip typically goes from origin to generator and then returns to the origin.

Diverted linked trips are trips that are attracted from the traffic volume on roadways within the vicinity of the generator but that require a diversion from that roadway to another roadway to gain access to the site. Diverted linked trips add traffic to streets adjacent to a site, but may not add traffic to the area’s major travel routes. For instance, some of Costco’s trips could be considered diverted linked trips from Pacific Highway. However, these trips still affect the adjacent street, namely Dartmouth Street.

After review of the information in the Trip Generation Handbook, trip rates were adjusted to account for pass-by trips. To account for pass-by trips, credit was given to those establishments that have clear evidence of pass-by percentages in the Trip Generation Handbook. The trip rate after the credit is given is the net trip rate for each of those establishments. The diverted link trips impact adjacent City streets and were not considered in the adjustments.

Group Selection

Once the net trip generation values were determined for each use, a table was created and sorted in increasing order of the number of trips per unit. The non-residential uses were divided into subgroups based on number of trips, similar to how the City of Tualatin (and other jurisdictions) groups them. Four non-residential subgroups were established as follows:

- Group 1 0 to 20 trips per unit
- Group 2 Greater than 20 to 100 trips per unit
- Group 3 Greater than 100 up to 400 trips per unit
- Group 4 Special group for parks, cemeteries and golf courses.

The concept behind forming subgroups is to help generate a maintenance fee rate that would be applied to each group, rather than having to develop a separate rate for all 52 land use categories included in the ITE Manual. Therefore, six different rates are established for the two residential categories and the four non-residential groups.

Rate Calculation

In order to develop fair rates for each group, it was important to first analyze the impact of each group with respect to their number of trips. Hence, the total theoretical number of trips per year for each group and a grand total of trips for all uses were calculated. The proportion of trips that each group contributes to the total annual trips, by percentage, is shown. The guiding premise is that each group should pay an amount proportionate to the trip impact contributed by that group. Therefore, if a group contributes 3% of the annual trips, then their annual maintenance fee amount should be approximately 3% of the total revenue required.

Calculated Fees

Attached are the spreadsheets (listed as Appendices B-1 through B-4) showing the groups and the amounts that each group should pay for each maintenance element. The groups and amounts are summarized in the following tables:

Table 1
Summary of Fees by Maintenance Element

Maintenance Element	Land Use Category	Rate/Month per Unit
Street Maintenance		
	Single Family (Detached)	\$1.2639
	Multi-Family	\$0.8756
	Non-residential Group 1 (0-20 trips/unit/day)	\$1.0341
	Non-residential Group 2 (< 20 - 100 trips/unit/day)	\$5.5315
	Non-residential Group 3 (<100 - 400 trips/unit/day)	\$26.7783
	Non-residential Group 4 (Special Category)	\$0.3570
ROW Maintenance		
	Single Family (Detached)	\$0.4266
	Multi-Family	\$0.2955
	Non-residential Group 1 (0-20 trips/unit/day)	\$0.3490
	Non-residential Group 2 (< 20 - 100 trips/unit/day)	\$1.8669
	Non-residential Group 3 (<100 - 400 trips/unit/day)	\$9.0377
	Non-residential Group 4 (Special Category)	\$0.1205
Sidewalk Maintenance		
	Single Family (Detached)	\$0.1422
	Multi-Family	\$0.0985
	Non-residential Group 1 (0-20 trips/unit/day)	\$0.1163
	Non-residential Group 2 (< 20 - 100 trips/unit/day)	\$0.6223
	Non-residential Group 3 (<100 - 400 trips/unit/day)	\$3.0126
	Non-residential Group 4 (Special Category)	\$0.0402
Street Light and Signal System Maintenance		
	Single Family (Detached)	\$0.7031
	Multi-Family	\$0.4871
	Non-residential Group 1 (0-20 trips/unit/day)	\$0.5752
	Non-residential Group 2 (< 20 - 100 trips/unit/day)	\$3.0769
	Non-residential Group 3 (<100 - 400 trips/unit/day)	\$14.8954
	Non-residential Group 4 (Special Category)	\$0.1986

Table 2
Summary of Fees for All Maintenance Elements

Land Use Category	Street Maint.	ROW Maint.	Sidewalk Maint.	Street Light and Signal System Maint.	Total Monthly Charge per Unit
Single Family	\$1.2639	\$0.4266	\$0.1422	\$0.7031	\$2.5357
Multi-Family	\$0.8756	\$0.2955	\$0.0985	\$0.4871	\$1.7567
Group 1	\$1.0341	\$0.3490	\$0.1163	\$0.5752	\$2.0746
Group 2	\$5.5315	\$1.8669	\$0.6223	\$3.0769	\$11.0976
Group 3	\$26.7783	\$9.0377	\$3.0126	\$14.8954	\$53.7239
Group 4	\$0.3570	\$0.1205	\$0.0402	\$0.1986	\$0.7162

The single family and multi-family groups individually pay relatively low monthly rates. Those rates are \$2.54 for single family dwellings and \$1.76 each for multi-family dwelling units. These are well within the range charged by other cities. For example, fees in Tualatin are now \$2.92 for single family dwelling units and \$5.12 for the same units in Ashland. The fee in Tigard would be lower than either city and should not create opposition among single family and multi-family residents, assuming an effective information campaign is undertaken to explain the reasons for initiation of the fees.

Appendix C shows the Summary of Rates in greater detail. Appendix D discusses the adjustments for pass-by trips in detail.

Conclusion

The State Gas Tax is no longer a viable source of funds for anything beyond routine maintenance involving pothole patching and crack sealing. Pavement overlays and reconstruction must be funded through other means. The Street Maintenance Fee appears to be a feasible source of funds for maintenance of the street network, including the street structural section, rights-of-way and sidewalks on collectors, and the street light and traffic signal systems. The fees based on net trip generation rates are relatively low for single family and multi-family dwellings. Fees for various businesses are higher, but are commensurate with the number of trips generated by those businesses.

The Street Maintenance Fee has been successfully implemented in other jurisdictions and could easily be justified for speedy implementation. The Street Maintenance Fee should be established as soon as possible so that the maintenance backlog on the City streets could be addressed in a comprehensive and effective manner.

The target amount for each of the maintenance elements is adequate as of calendar year 2002. The target amounts for the elements should be reviewed periodically and compared with the actual revenues received and against the rate of inflation and increases in costs. Hence, the Street

Maintenance Fee should be reviewed after the first full year of implementation, and at least every three to five years after that. Decisions can be made at those reviews on the need, if any, to increase the fees to attain expected revenues, or to keep pace with the effects of inflation.

Appendices

Appendix A-1 – City of Tigard Street Maintenance Needs
Appendix A-2 – Long-Term Program for Annual Street Maintenance
Appendix B-1 – Street Maintenance Element
Appendix B-2 – ROW Maintenance Element
Appendix B-3 – Sidewalk Maintenance Element
Appendix B-4 – Street Light Maintenance Element
Appendix C – Summary of Rates
Appendix D – Adjustments for Pass-by Trips

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City of Tigard

Street Maintenance Backlog*

Maintenance Category	Total Cost
Street Reconstruction	\$590,000
Pavement Overlay	\$470,000
Slurry Seals	1,010,000
TOTAL COSTS	\$2,070,000

*Based on road ratings performed in 1999

Appendix A-1

Long-Term Program for Annual Street Maintenance

Database

The street list for this long-term program was obtained from a database consisting of all the streets in the City of Tigard. The database was created in 1999 by CHEC Consultants. CHEC inspected each street in the City and assigned ratings based on pavement surface conditions. The Pavement Management Software provided by CHEC Consultants accesses the database and provides recommendations for preventative and corrective maintenance on those streets.

A street is typically divided into segments with similar cross-sections. Changes in the street cross-sections would result in different segments within the same street throughout its entire length. The most common rating used is the Pavement Condition Index (PCI), which assigns a rating from 0 to 100 for each street segment. The higher the number the better the condition of the street. Thus, a newly resurfaced street will have a PCI rating of 100. Although this rating is only one of the factors that are used in determining condition of the street, it is used (for purposes of the study) to provide the basis for a long-term program of preventative and corrective maintenance.

Classifications

The streets are classified into four categories: arterial, collectors, neighborhood routes and local streets. To determine the future conditions of the streets, the following deterioration rates are used: Arterials and Collectors = 2 PCI/year, Neighborhood Routes and Local Streets = 1 PCI/yr. The base year for the PCI rating is 1999.

Street Area

The cost of resurfacing is based on the surface area of the street. The surface area of the street is determined by the product of the street project length and the average width of the street.

Maintenance Options

The four maintenance options being considered in rehabilitating the streets are: Slurry Seal, Thin Overlay, Overlay and Reconstruction.

The determination of maintenance option for each street depends on the updated PCI rating of the street and is shown as follows:

- PCI < 20 requires Reconstruction
- 20 < PCI < 59 requires Overlay
- PCI > 59 on arterials and collectors requires Thin Overlay
- PCI > 59 requires Slurry Seal if the Street is categorized as Local.

Pavement Life Cycle

The following is the life expectancy for each of the four maintenance options:

- Reconstruction = 20 years
- Overlay = 15 to 18 years
- Thin Overlay = 12 to 15 years
- Slurry Seal = 8 to 12 years

Estimate Assumptions

- \$800,000 will be available yearly for the street maintenance.
- Annual inflation rate of 3% is applied to unit cost.
- The unit costs for the year 2003 are as follows:
 - Overlay = \$1.25/s.f. Thin Overlay = \$0.60/s.f., Slurry = \$0.2/s.f.
 - Reconstruction in year 2011 = \$6.00/s.f.

APPENDIX A-2

Maintenance Schedule

With a proposed annual amount of \$800,000 for street maintenance, the objective is to rehabilitate the entire city street inventory in the shortest possible time frame. A strategic plan of careful expenditure and savings enables the entire city street inventory to be rehabilitated in 16 years (from FY 2003-04 to FY2019-20). Approximately \$700,000 out of \$800,000 is spent annually to maintain streets. Approximately \$100,000 is reserved every year. The cumulative reserve amount would be used in future fiscal years for the reconstruction of severely damaged streets as part of the long-term plan.

By FY 2019-20, each street in the entire street inventory would have received some type of maintenance treatment at least once. Due to the life expectancy of the pavements, previously overlaid streets would be revisited by FY 2018-19, thin overlay by FY 2015-16 and slurry seal by FY 2014-15 to determine the need for maintenance at that point. The entire maintenance cycle would begin again in FY 2020-21.

APPENDIX A-2

Proposed Major Maintenance Budget Forecast

Forecast Assumptions:

Base Year for Pavement Condition Index = 1999
Pavement Condition Index Depreciation (Arterials and Collectors) = 2 PCI /Yr
Pavement Condition Index Depreciation (Neighborhood Routes and Local) = 1 PCI /Yr
Pavement Condition Index Rating of 100 = Newly resurfaced Street
PCI < 20 =Requires complete pavement reconstruction
20 < PCI < 59 = Requires Overlay
60 <PCI < 100 = RequiresThin Overlay, Requires Slurry if Local Street
Unit Costs includes 3% inflation over previous year's rate

Proposed Major Maintenance Budget Forecast

Road Name	Limits From	To	Classificoat	FY 2003-2004		Prj_length	Width	Area (s.f.)	Cost
				1999 PCI	2003 PCI				
72 ND	VARNIS ST	HUNZIKER ST	Arterial	53	45 Overlay	475	40	19000	\$23,750.00
DURHAM	SUMMERFIE DR	113 TH AV	Arterial	56	48 Overlay	470	40	18800	\$23,500.00
72 ND	PINE ST	OAK ST	Arterial	67	59 Thin Overlay	420	40	16800	\$10,080.00
72 ND	BAYLOR ST	BAYLOR ST	Arterial	73	65 Thin Overlay	1190	40	47600	\$28,560.00
121 ST	SUMMERCRE DR	SUMMER ST	Collector	47	39 Overlay	320	35	11200	\$14,000.00
121 ST	SUMMER ST	BURLHEIGH DR	Collector	58	50 Overlay	275	35	9625	\$12,031.25
121 ST	CHANDLER DR	GRARD ST	Collector	100	92 Thin Overlay	410	35	14350	\$17,937.50
BONITA	FANNO CRE BR	RR CROSSI	Collector	62	54 Overlay	390	35	13650	\$17,062.50
SCOFFINS	ASH AV	MAIN ST	Collector	46	38 Overlay	425	35	14875	\$18,593.75
CASCADE	SCHOLLS F RD	SCHOLLS F RD	Collector	100	92 Thin Overlay	581	35	20335	\$25,418.75
PPAFFLE	82 ND AV	81 ST AV	Collector	95	87 Thin Overlay	280	35	9800	\$12,250.00
NORTH DAKOTA	121 ST AV	119 TH AV	Neigh'd Route	28	24 Overlay	520	30	15600	\$19,500.00
79 TH	CHURCHILL WY	THURSTON DR	Neigh'd Route	53	49 Overlay	1080	30	32400	\$40,500.00
79 TH	BOND ST	CHURCHILL WY	Neigh'd Route	37	33 Overlay	115	30	3450	\$4,312.50
79 TH	GENTLEWOOD DR	MARA CT	Neigh'd Route	47	43 Overlay	1490	30	44700	\$55,875.00
ROSS	HALL BL	81 ST AV	Neigh'd Route	47	43 Overlay	950	30	28500	\$35,625.00
NORTH DAKOTA	GREENBURG RD	95 TH AV	Neigh'd Route	52	48 Overlay	240	30	7200	\$9,000.00
NORTH DAKOTA	PRIVATE RD	TIEDEMAN AV	Neigh'd Route	82	78 Thin Overlay	1340	30	40200	\$50,250.00
SHADY	GREENBURG RD	GREENBURG RD	Neigh'd Route	68	64 Thin Overlay	1000	30	30000	\$37,500.00
92 ND	PARKING L	PARKING L	Neigh'd Route	63	59 Thin Overlay	335	30	10050	\$12,562.50
132 ND	133 RD AV	133 RD AV	Local	24	20 Overlay	925	25	23125	\$28,906.25
112 TH	ERROL ST	WALNUT ST	Local	26	22 Overlay	500	25	12500	\$15,625.00
66 TH	HAMPTON ST	HAMPTON ST	Local	30	26 Overlay	510	25	12750	\$15,937.50
67 TH	CLINTON ST	END	Local	48	44 Overlay	845	25	21125	\$26,406.25
THORN/81ST	CUL-DE-SA	THORN ST	Local	47	43 Overlay	106	25	2650	\$3,312.50
66 TH	HAMPTON ST	FRANKLIN ST	Local	55	51 Overlay	620	25	15500	\$19,375.00
								Sub Total	\$577,871.25
								Engineering & Admin=10%, Overlay Cost=\$1.25/s.f., Thin Overlay Cost=\$0.6/s.f.	\$57,787.13
								Total	\$635,658
								Accumulated Reserve Total	\$164,341.63

Road Name	Limits From	To	Classificoat	FY 2004-2005		Prj_length	Width	Area (s.f.)	Cost
				1999 PCI	2004 PCI				
GREENBURG	LINCOLN AV	98 TH AV	Arterial	84	74 Thin Overlay	2150	40	86000	\$53,148.00
GREENBURG	CENTER ST	LINCOLN AV	Arterial	88	78 Thin Overlay	800	40	32000	\$19,776.00
GREENBURG	PACIFIC HW	CENTER ST	Arterial	54	44 Overlay	211	40	8440	\$11,528.27
72 ND	OAK ST	VENTURA DR	Arterial	80	70 Thin Overlay	1087	40	43480	\$26,870.64
DURHAM	92 ND AV	HALL BL	Arterial	80	70 Thin Overlay	1799	40	71960	\$44,471.28
DURHAM	SERENA CT	92 ND AV	Arterial	80	70 Thin Overlay	2020	40	80800	\$49,934.40
DURHAM	74 TH AV	BOONESPER RD	Arterial	75	65 Thin Overlay	450	40	18000	\$11,124.00
DURHAM	113 TH AV	SERENA CT	Arterial	70	60 Thin Overlay	2510	40	100400	\$60,404.20
BURNHAM	ASH AV	ASH AV	Collector	36	26 Overlay	760	35	26600	\$34,247.50
BURNHAM	HALL BL	ASH AV	Collector	35	25 Overlay	1205	35	42175	\$54,300.31
TIEDEMAN	WALNUT ST	CITY LIM	Collector	31	21 Overlay	210	35	7350	\$9,463.13
TIEDEMAN	CITY LIM	CITY LIM	Collector	42	32 Overlay	290	35	10150	\$13,068.13
121 ST	BURLHEIGH DR	NORTH DAK ST	Collector	100	90 Thin Overlay	245	35	8575	\$5,299.35
SCOFFINS	HALL BL	ASH AV	Collector	80	70 Thin Overlay	470	35	16450	\$10,166.10
VENTURA	VENTURA DR	BARBARA LN	Neigh'd Route	65	60 Thin Overlay	890	30	26700	\$35,500.60
130 TH	CUL-DE-SA	MORNINGST DR	Neigh'd Route	66	61 Thin Overlay	610	30	18300	\$11,309.40
SUMMERFIELD	DURHAM RD	114 TH CT	Neigh'd Route	72	67 Thin Overlay	1000	30	30000	\$18,540.00
78 TH	PPAFFLE ST	SPRUCE ST	Neigh'd Route	75	70 Thin Overlay	280	30	8400	\$5,191.20
COMMERCIAL	95 TH AV	98 TH AV	Neigh'd Route	80	75 Thin Overlay	250	30	7500	\$4,635.00
LOCUST	GREENBURG RD	92 ND AV	Neigh'd Route	82	77 Thin Overlay	1070	30	32100	\$19,837.80
MURDOCK	98 TH AV	97 TH AV	Neigh'd Route	82	77 Thin Overlay	300	30	9000	\$5,562.00
BENCHVIEW	ALPINE VI CT	71 PL	Local	82	77 Thin Overlay	2495	30	74850	\$46,257.30
GARDEN	GARDEN PL	GARDEN PL	Local	53	53 Overlay	850	25	21250	\$27,959.38
69 TH	DARTMOUTH ST	CLINTON ST	Local	52	47 Overlay	305	25	7625	\$9,817.19
SANDBURG	72 ND AV	CUL-DE-SA	Local	53	48 Overlay	935	25	23375	\$30,095.31
113 TH	END	END	Local	53	48 Overlay	730	25	18250	\$23,496.88
ASH	COMMERCIA ST	SCOFFINS ST	Local	55	50 Overlay	415	25	10375	\$13,357.81
								Sub Total	\$637,404.16
								Engineering & Admin=10%, Overlay Cost=\$1.2875/s.f., Thin Overlay=\$0.618/s.f.	\$63,740.42
								Total	\$701,145
								Accumulated Reserve Total	\$263,197.04

Road Name	Limits From	To	Classificoat	FY 2005-2006		Prj_length	Width	Area (s.f.)	Cost
				1999 PCI	2005 PCI				
72 ND	FIR ST	VARNIS ST	Arterial	80	68 Thin Overlay	360	40	14400	\$9,166.18
72 ND	BAYLOR ST	VILLA RID WY	Arterial	82	70 Thin Overlay	150	40	6000	\$3,819.24
WALNUT	BARROWS (RD	SHOPPING	Arterial	80	70 Thin Overlay	260	40	10400	\$6,620.02
WALNUT	SHOPPING	NORTHVIEW DR	Arterial	82	70 Thin Overlay	230	40	9200	\$5,856.17
WALNUT	NORTHVIEW DR	135 TH AV	Arterial	84	72 Thin Overlay	1610	40	64400	\$40,993.18
WALNUT	135 TH AV	132 ND AV	Arterial	90	78 Thin Overlay	1475	40	59000	\$37,555.86
WALNUT	132 ND AV	128 TH AV	Arterial	90	78 Thin Overlay	950	40	38000	\$24,188.52
PPAFFLE	83 RD AV	82 ND AV	Collector	82	70 Thin Overlay	220	35	7700	\$4,901.36
68 TH	66 TH AV	HAMPTON ST	Collector	84	72 Thin Overlay	895	35	31325	\$19,939.62
68 TH	HAMPTON ST	66 TH AV	Collector	84	72 Thin Overlay	895	35	31325	\$19,939.62
BONITA	RR CROSSI	72 ND AV	Collector	84	72 Thin Overlay	820	35	28700	\$18,268.70
MAIN	PACIFIC HW	PACIFIC HW	Collector	84	72 Thin Overlay	285	35	9975	\$6,349.49
121 ST	MERESTONE CT	SUMMERCRE DR	Collector	84	72 Thin Overlay	300	35	10500	\$6,683.67
WALNUT	ASCENSION DR	END	Collector	82	70 Thin Overlay	210	35	7350	\$4,678.57
OAK	GREENBURG RD	95 TH AV	Collector	84	72 Thin Overlay	1085	35	37975	\$24,172.61
CASCADE	GREENBURG RD	SCHOLLS F RD	Collector	95	83 Thin Overlay	775	35	27125	\$17,266.15
CASCADE	SCHOLLS F RD	SCHOLLS F RD	Collector	100	88 Thin Overlay	634	35	22190	\$14,124.82
90 TH	GREENBURG RD	NORTH DAK ST	Neigh'd Route	85	79 Thin Overlay	1610	30	48300	\$30,744.88
SPRINGWOOD	COTTONWOOD LN	IRONWOOD LP	Neigh'd Route	64	58 Overlay	510	30	15300	\$20,289.71
NORTH DAKOTA	GREENBURG RD	GREENBURG RD	Neigh'd Route	55	49 Overlay	683	30	20490	\$27,172.30
98 TH	SATTLER ST	MURDOCK ST	Neigh'd Route	64	58 Overlay	1100	30	33000	\$43,762.13
HILLSHIRE	CUL-DE-SA	BLUE GOW CT	Neigh'd Route	84	78 Thin Overlay	3175	30	95250	\$60,630.44
CANTERBURY	PACIFIC HW	109 TH AV	Neigh'd Route	84	78 Thin Overlay	785	30	23550	\$14,990.52
98 TH	COMMERCIA ST	LONDON CT	Neigh'd Route	82	76 Thin Overlay	240	30	7200	\$4,583.09
PREWING	ASH AV	PACIFIC HW	Neigh'd Route	68	62 Thin Overlay	1430	30	42900	\$27,307.57
91 ST	PINEBROOK ST	CUL-DE-SA	Neigh'd Route	81	75 Thin Overlay	420	30	12600	\$8,020.40
93 RD	INEZ ST	MCDONALD ST	Neigh'd Route	95	89 Thin Overlay	1300	30	39000	\$24,825.06
NIMBUS	CUL-DE-SA	SCHOLLS F RD	Local	55	49 Overlay	1300	25	32500	\$43,099.06
FRANKLIN	68 TH AV	68 TH AV	Local	56	50 Overlay	520	25	13000	\$17,339.63
CARMEN	121 ST AV	CITY LIM	Local	57	51 Overlay	270	25	6750	\$8,951.34
PINE	69 TH AV	CUL-DE-SA	Local	60	54 Overlay	815	25	20375	\$27,019.80
85 TH	CITY LIM	DURHAM RD	Local	62	56 Overlay	795	25	19875	\$26,356.73
								Sub Total	\$649,516.40
								Engineering & Admin=10%, Overlay Cost=\$1.326/s.f., Thin Overlay=\$0.636/s.f.	\$64,951.64
								Total	\$714,468
								Accumulated Reserve Total	\$348,729.01

APPENDIX A-2

Road Name	Limits From	To	Classification	FY 2006-2007		Prj_length	Width	Area (s.f.)	Cost	
				1999 PCI	2006 PCI					
72 ND	HAMPTON ST	DARTMOUTH ST	Arterial	100	86 Thin Overlay	2000	40	80000	\$52,450.90	
72 ND	CLINTON ST	BAYLOR ST	Arterial	100	86 Thin Overlay	610	40	24400	\$15,997.52	
72 ND	DARTMOUTH ST	CLINTON ST	Arterial	86	72 Thin Overlay	465	40	18600	\$12,194.83	
72 ND	SPRUCE ST	PINE ST	Arterial	82	68 Thin Overlay	360	40	14400	\$9,441.16	
72 ND	OAK ST	OAK ST	Arterial	93	79 Thin Overlay	321	40	12840	\$8,418.37	
72 ND	CITY LIM	REDWOOD LN	Arterial	100	86 Thin Overlay	5458	40	218320	\$143,138.50	
72 ND	REDWOOD LN	BONITA RD	Arterial	100	86 Thin Overlay	1973	40	78920	\$51,742.81	
MAIN	FARM CR BR	SCOFFINS ST	Collector	82	68 Thin Overlay	1795	35	62825	\$41,190.34	
PPAFFLE	81 ST AV	PACIFIC HW	Collector	82	68 Thin Overlay	1130	35	39550	\$25,930.41	
MCDONALD	93 RD AV	HALL BL	Collector	80	66 Thin Overlay	1830	35	64050	\$41,993.50	
68 TH	66 TH AV	66 TH AV	Collector	100	86 Thin Overlay	630	35	22050	\$14,456.78	
69 TH	PACIFIC HW	PINE ST	Collector	100	86 Thin Overlay	320	35	11200	\$7,343.13	
BONITA	HALL BL	79 TH AV	Collector	100	86 Thin Overlay	1515	35	53025	\$34,765.11	
BONITA	72 ND AV	INTERSTAT HW	Collector	100	86 Thin Overlay	1170	35	40950	\$26,848.30	
BONITA	INTERSTAT HW	72 ND AV	Collector	100	86 Thin Overlay	1170	35	40950	\$26,848.30	
WALNUT	PACIFIC HW	PACIFIC HW	Neigh'd Route	70	63 Thin Overlay	245	30	7350	\$4,818.93	
ASH	COWLES CT	GARRETT ST	Neigh'd Route	74	67 Thin Overlay	205	30	6150	\$4,032.16	
BENCHVIEW	BULL MOUN RD	ALPINE VI	Neigh'd Route	82	75 Thin Overlay	695	30	20850	\$13,670.01	
95 TH	END	OAK ST	Local	61	54 Overlay	285	25	7125	\$9,732.10	
66 TH	END	68 TH PW	Local	62	55 Overlay	455	25	11375	\$15,537.21	
66 TH	68 TH PW	HAMPTON ST	Local	62	55 Overlay	1045	25	26125	\$35,684.37	
FERN	CITY LIM AV	77 TH AV	Local	77	70 Slurry	350	25	8875	\$1,939.59	
LOMITA	90 TH AV	CUL-DE-SA	Local	62	55 Overlay	575	25	14375	\$19,634.94	
SPRUCE	89 TH AV	HALL BL	Local	62	55 Overlay	720	25	18000	\$24,586.36	
Sub Total									\$642,395.63	
Engineering & Admin=10%, Overlay Cost=\$1.365/s.f. , Thin Overlay=\$0.655/s.f. Slurry Cost=\$0.218/s.f.									\$64,239.56	
Total									\$706,635	
Accumulated Reserve Total									\$442,093.82	

Road Name	Limits From	To	Classification	FY 2007-2008		Prj_length	Width	Area (s.f.)	Cost	
				1999 PCI	2007 PCI					
72 ND	BONITA RD	SANDBURG ST	Arterial	100	84 Thin Overlay	2595	40	103800	\$70,096.69	
72 ND	SANDBURG ST	FIR ST	Arterial	100	84 Thin Overlay	680	40	27200	\$18,368.30	
72 ND	HUNZIKER ST	HAMPTON ST	Arterial	100	84 Thin Overlay	325	40	13000	\$8,778.97	
DURHAM	PACIFIC HW	SUMMERFIE DR	Arterial	95	79 Thin Overlay	560	40	22400	\$15,126.84	
DURHAM	HALL BL	79 TH AV	Arterial	100	84 Thin Overlay	1695	40	67800	\$45,785.70	
DURHAM	79 TH AV	74 TH AV	Arterial	100	84 Thin Overlay	1165	40	46600	\$31,469.23	
PPAFFLE	HALL BL	HALL BL	Collector	70	54 Overlay	215	35	7525	\$10,586.82	
121 ST	NORTH DAK ST	MANZANITA CT	Collector	70	54 Overlay	970	35	33950	\$47,763.78	
BONITA	79 TH AV	MILTON CT	Collector	85	69 Thin Overlay	1170	35	40950	\$27,653.75	
TIEDEMAN	CITY LIM	106 TH AV	Collector	77	61 Thin Overlay	225	35	7875	\$5,318.03	
BURNHAM	ASH AV	MAIN ST	Collector	86	70 Thin Overlay	150	35	5250	\$3,448.35	
CASCADE	GREENBURG RD	GREENBURG RD	Collector	80	64 Thin Overlay	880	35	30800	\$20,799.40	
WALNUT	GRANT AV	PACIFIC HW	Collector	80	64 Thin Overlay	475	35	16625	\$11,226.95	
MISTLETOE	HILLSHIRE DR	BENCHVIEW CT	Neigh'd Route	82	74 Thin Overlay	360	30	10800	\$7,293.30	
SATTTLER	100 TH AV	98 TH AV	Neigh'd Route	82	74 Thin Overlay	475	30	14250	\$9,623.10	
115 TH	GENESIS LP	CITY LIM	Neigh'd Route	82	74 Thin Overlay	480	30	14400	\$9,724.40	
WINTERLAKE	SHORE DR	WINTERLAK CT	Neigh'd Route	83	75 Thin Overlay	1000	30	30000	\$20,259.16	
108 TH	TITAN LN	DURHAM RD	Neigh'd Route	78	70 Thin Overlay	880	30	26400	\$17,828.00	
98 TH	DURHAM	SUMMERFIE DR	Neigh'd Route	77	69 Thin Overlay	1160	30	34800	\$23,500.62	
95 TH	GREENBURG RD	SHADY LN	Neigh'd Route	90	82 Thin Overlay	1810	30	54300	\$36,669.08	
97 TH	MURDOCK ST	MCDONALD ST	Neigh'd Route	90	82 Thin Overlay	1968	30	59040	\$39,870.02	
98 TH	SUMMERFIE DR	SATTTLER ST	Neigh'd Route	87	79 Thin Overlay	1060	30	31800	\$21,474.71	
98 TH	LONDON CT	GREENBURG RD	Neigh'd Route	100	92 Thin Overlay	1045	30	31350	\$21,170.82	
ANN	124 TH AV	CUL-DE-SA	Local	63	55 Overlay	535	25	13375	\$18,817.10	
LANDAU	77 TH AV	72 ND AV	Local	64	56 Slurry	1247	25	31675	\$1,130.27	
TIGARD	116 TH AV	115 TH AV	Local	66	58 Overlay	264	25	6600	\$9,285.45	
ELMHURST	72 ND AV	70 TH AV	Local	67	59 Slurry	515	25	12875	\$2,898.19	
126 TH	KAREN ST	CUL-DE-SA	Local	68	60 Slurry	375	25	9375	\$2,110.33	
KATHERINE	131 ST AV	128 TH AV	Local	70	62 Slurry	590	25	14750	\$3,320.25	
105 TH	CUL-DE-SA	MCDONALD ST	Local	71	63 Slurry	390	25	9750	\$2,194.74	
KATHERINE	KAROL CT	KAROL CT	Local	72	64 Slurry	317	25	7925	\$1,783.93	
COLONY CREEK	CUL-DE-SA	CUL-DE-SA	Local	80	72 Slurry	850	25	21250	\$4,783.41	
133 RD	132 ND AV	BULL MOUN RD	Local	53	45 Overlay	1625	25	40625	\$57,154.74	
Sub Total									\$633,411.32	
Engineering & Admin=10%, Overlay Cost=\$1.406/s.f. , Thin Overlay=\$0.675/s.f. Slurry Cost=\$0.225/s.f.									\$63,341.13	
Total									\$696,752	
Accumulated Reserve Total									\$545,341.37	

Road Name	Limits From	To	Classification	FY 2008-2009		Prj_length	Width	Area (s.f.)	Cost
				1999 PCI	2008 PCI				
DURHAM	SUMMERFIE LN	SUMMERFIE LN	Arterial	100	82 Thin Overlay	560	40	22400	\$15,580.64
WALNUT	139 TH AV	135 TH AV	Arterial	100	82 Thin Overlay	880	40	35200	\$24,483.87
WALNUT	69 TH AV	69 TH AV	Collector	76	58 Thin Overlay	395	35	13825	\$9,616.18
121 ST	ROSE VIST DR	HOWARD DR	Collector	81	63 Thin Overlay	1170	35	40950	\$28,483.36
69 TH	PACIFIC HW	PACIFIC HW	Collector	82	64 Thin Overlay	140	35	4900	\$3,408.27
OAK	87 TH AV	HALL BL	Collector	100	82 Thin Overlay	220	35	7700	\$5,355.85
135 TH	WALNUT ST	SCHOLLS F RD	Collector	100	82 Thin Overlay	3787	35	132545	\$92,193.59
SCOFFINS	ASH AV	ASH AV	Collector	100	82 Thin Overlay	155	35	5425	\$3,773.44
HAMPTON	66 TH PW	66 TH AV	Collector	82	64 Thin Overlay	305	35	10675	\$7,425.15
HAMPTON	66 TH AV	66 TH AV	Collector	82	64 Thin Overlay	225	35	7875	\$5,477.57
OAK	72 ND AV	71 ST AV	Collector	82	64 Thin Overlay	460	35	16100	\$11,198.59
CASCADE	GREENBURG RD	GREENBURG RD	Collector	95	77 Thin Overlay	2490	35	87150	\$60,618.44
CASCADE	SCHOLLS F RD	SCHOLLS F RD	Collector	82	64 Thin Overlay	581	35	20335	\$14,144.30
HAMPTON	70 TH AV	68 TH PW	Collector	90	72 Thin Overlay	535	35	18725	\$13,024.44
HUNZIKER	HALL BL	72 ND AV	Collector	94	76 Thin Overlay	3855	35	134925	\$93,849.03
ASCENSION	MISTLETOE DR	WALNUT LN	Neigh'd Route	82	73 Thin Overlay	4180	30	125400	\$87,223.78
MISTLETOE	ASCENSION DR	ESSEX DR	Neigh'd Route	82	73 Thin Overlay	255	30	7650	\$5,321.07
MISTLETOE	ASCENSION DR	HILLSHIRE DR	Neigh'd Route	82	73 Thin Overlay	1615	30	48450	\$33,700.10
MISTLETOE	BENCHVIEW CT	ALPINE	Neigh'd Route	82	73 Thin Overlay	1065	30	31950	\$22,223.28
OAK	71 ST AV	69 TH AV	Neigh'd Route	82	73 Thin Overlay	635	30	19050	\$13,250.50
OMARA	HILL ST	CHELSEA LP	Neigh'd Route	76	67 Thin Overlay	615	30	18450	\$12,833.16
PARK	WATKINS AV	GRANT AV	Neigh'd Route	76	67 Thin Overlay	695	30	20850	\$14,502.52
WATKINS	WATKINS PL	WALNUT ST	Neigh'd Route	77	68 Thin Overlay	1185	30	35550	\$24,727.32
NORTH DAKOTA	SPRINGWOOD DR	ANTON DR	Neigh'd Route	78	69 Thin Overlay	530	30	15900	\$11,059.47
PARK	DERRY DEL CT	WATKINS AV	Local	76	67 Slurry	1250	25	31250	\$7,245.46
76 TH	END	BONITA RD	Local	73	64 Slurry	200	25	5000	\$1,159.27
CLINTON	69 TH AV	68 TH AV	Local	73	64 Slurry	260	25	6500	\$1,507.06
FERN	CITY LIM	135 TH AV	Local	73	64 Slurry	125	25	3125	\$724.55
121 ST	GAARDE ST	ROSE VIST DR	Local	77	68 Slurry	520	25	13000	\$3,014.11
79 TH	PACIFIC HW	PACIFIC HW	Local	74	65 Slurry	211	25	5275	\$1,223.03
79 TH	PACIFIC HW	PACIFIC HW	Local	74	65 Slurry	317	25	7925	\$1,837.45
87 TH	MCDONALD ST	CUL-DE-SA	Local	74	65 Slurry	525	25	13125	\$3,043.09
DERRY DELL	PARK ST	WATKINS AV	Local	74	65 Slurry	495	25	12375	\$2,869.20
114 TH	CUL-DE-SA	TIGARD ST	Local	74	65 Slurry	580	25	14500	\$3,361.89
136 TH	CUL-DE-SA	WALNUT LN	Local	74	65 Slurry	205	25	5125	\$1,188.26
PARK	GRANT AV	PACIFIC HW	Local	78	69 Slurry	175	25	4375	\$1,014.36
MANZANITA	119 TH AV	115 TH AV	Local	75	66 Slurry	840	25	21000	\$4,868.95
126 TH	BULL MOUN RD	END	Local	66	57 Overlay	440	25	11000	\$15,940.02
JULIA	CUL-DE-SA	93 RD AV	Local	80	71 Slurry	400	25	10000	\$2,318.55
LEHMAN	GREENBURG RD	GREENBURG RD	Local	80	71 Slurry	255	25	6375	\$1,478.07
MARTHA	COPPER CR DR	93 RD AV	Local	80	71 Slurry	430	25	10750	\$2,492.44
MILLEN	93 RD AV	92 ND AV	Local	80	71 Slurry	395	25	9875	\$2,289.57
113 TH	CUL-DE-SA	CUL-DE-SA	Local	80	71 Slurry	320	25	8000	\$1,854.84
123 RD	CUL-DE-SA	KATHERINE ST	Local	80	71 Slurry	430	25	10750	\$2,492.44
SERENA	WOODCREST AV	PICKS CT	Local	82	73 Slurry	1105	25	27625	\$6,404.99
93 RD	CUL-DE-SA	MARTHA ST	Local	82	73 Slurry	1400	25	35000	\$8,114.92
MILLEN	COPPER CR DR	MILLEN/94 CT	Local	84	75 Slurry	520	25	13000	\$3,014.11
CARDINAL	SEQUOIA P	CUL-DE-SA	Local	84	75 Slurry	400	25	10000	\$2,318.55
BOXELDER	HILLSHIRE DR	MINT PL	Local	82	73 Slurry	265	25	6625	\$1,536.04
IRONWOOD	SPRINGWOOD DR	SPRINGWOOD DR	Local	82	73 Slurry	2270	25	56750	\$13,157.76
RIVERWOOD	RIVERWOOD PL	END	Local	82	73 Slurry	1825	25	45625	\$10,578.38
Sub Total									\$720,521.30
Engineering & Admin=10%,				\$72,052.13					

Overlay Cost=\$1.449/s.f. , Thin Overlay=\$0.695/s.f. Slurry Cost=\$0.231/s.f.

Total

\$792,573

Accumulated Reserve Total

\$552,767.94

Road Name	Limits From	To	Classification	1999 PCI	2009 PCI	FY 2009-2010 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
LOCUST	92 ND AV	HALL BL	Collector	90	70	Thin Overlay	1561	35	54635	\$39,142.23
MAIN	SCOFFINS ST	PACIFIC HW	Collector	85	65	Thin Overlay	550	35	19250	\$13,791.30
MCDONALD	105 TH AV	93 RD AV	Collector	94	74	Thin Overlay	3296	35	115360	\$82,647.52
OAK	95 TH AV	90 TH AV	Collector	91	71	Thin Overlay	430	35	15050	\$10,782.29
PPAFFLE	HALL BL	83 RD AV	Collector	100	80	Thin Overlay	660	35	23100	\$16,549.56
WALNUT	TIEDEMAN AV	FONNER ST	Collector	90	70	Thin Overlay	211	35	7385	\$5,290.85
WALNUT	FONNER ST	106 TH AV	Collector	90	70	Thin Overlay	370	35	12950	\$9,277.79
121 ST	JAMES ST	FONNER ST	Collector	85	65	Thin Overlay	330	35	11550	\$8,274.78
121 ST	WALNUT ST	ANN ST	Collector	90	70	Thin Overlay	464	35	16240	\$11,634.85
121 TH	ANN ST	MERESTONE CT	Collector	90	70	Thin Overlay	1565	35	54775	\$39,242.53
FALCON RISE	MORNING H DR	MORNING H DR	Neigh'd Route	86	76	Thin Overlay	730	30	21900	\$15,689.85
KABLE	100 TH AV	100 TH AV	Neigh'd Route	84	74	Thin Overlay	330	30	9900	\$7,092.67
TIGARD	TIEDEMAN AV	TIEDEMAN AV	Neigh'd Route	86	76	Thin Overlay	170	30	5100	\$3,653.80
SATTLE	92 ND AV	91 ST AV	Neigh'd Route	92	82	Thin Overlay	130	30	3900	\$2,794.08
79 TH	CHURCHILL WY	CHURCHILL WY	Neigh'd Route	67	57	Overlay	145	30	4350	\$6,492.66
79 TH	THURSTON DR	GENTLEWOOD DR	Neigh'd Route	82	72	Thin Overlay	535	30	16050	\$11,498.72
92 ND	PARKING L	DURHAM RD	Neigh'd Route	91	81	Thin Overlay	2402	30	72060	\$51,626.05
JOHNSON	GRANT AV	PACIFIC HW	Neigh'd Route	67	57	Overlay	710	30	21300	\$15,791.64
NORTH DAKOTA	ANTON DR	121 ST AV	Neigh'd Route	85	75	Thin Overlay	1525	30	45750	\$32,776.74
PINEBROOK	92 ND AV	HALL BL	Neigh'd Route	83	73	Thin Overlay	1835	30	55050	\$39,439.55
SPRINGWOOD	121 ST AV	COTTONWOOD LN	Neigh'd Route	82	72	Thin Overlay	1430	30	42900	\$30,734.91
SUMMERFIELD	DURHAM RD	DURHAM RD	Neigh'd Route	68	58	Overlay	290	30	8700	\$12,985.32
SUMMERCREST	TIGARD DR	CUL-DE-SA	Local	77	67	Slurry	1885	25	47125	\$11,253.94
107 TH	CUL-DE-SA	107 TH CT	Local	75	65	Slurry	106	25	26250	\$632.85
MORNINGSTAR	WOODSHIRE LN	CUL-DE-SA	Local	82	72	Slurry	1675	25	41875	\$10,000.19
MANZANITA	121 ST AV	121 ST AV	Local	77	67	Slurry	264	25	6600	\$1,576.75
MERESTONE	CUL-DE-SA	121 ST AV	Local	77	67	Slurry	435	25	10875	\$2,597.06
MURDOCK	106 TH AV	END	Local	77	67	Slurry	160	25	4000	\$955.24
SERENA	PICKS CT	GRIMSON CT	Local	77	67	Slurry	680	25	17000	\$4,059.78
STEVEN	CUL-DE-SA	CRESMER DR	Local	77	67	Slurry	230	25	5750	\$1,373.16
SUMMERCREST	CUL-DE-SA	SUMMERCRE DR	Local	77	67	Slurry	310	25	7750	\$1,850.78
71 ST	PINE ST	OAK ST	Local	82	72	Slurry	415	25	10375	\$2,449.45
COTTONWOOD	115 TH AV	SPRINGWOOD DR	Local	83	73	Slurry	2445	25	61125	\$14,597.29
71 ST	PACIFIC HW	SPRUCE ST	Local	82	72	Slurry	450	25	11250	\$2,686.62
71 ST	SPRUCE ST	PINE ST	Local	82	72	Slurry	415	25	10375	\$2,477.66
71 ST	OAK ST	MAPLELEAF ST	Local	82	72	Slurry	400	25	10000	\$2,388.10
76 TH	END	SPRUCE ST	Local	82	72	Slurry	250	25	6250	\$1,492.57
86 TH	INEZ ST	GREENSWAR LN	Local	82	72	Slurry	430	25	10750	\$2,567.21
87 TH	INEZ ST	CUL-DE-SA	Local	82	72	Slurry	280	25	7000	\$1,671.67
92 ND	GREENBURG RD	END	Local	82	72	Slurry	970	25	24250	\$5,791.15
93 RD	NORTH DAK ST	END	Local	82	72	Slurry	380	25	9500	\$2,268.70
ALPINE VIEW	BENCHVIEW TR	MISTLETOE DR	Local	82	72	Slurry	665	25	16625	\$3,970.22
ALPINE VIEW	CUL-DE-SA	BENCHVIEW TR	Local	82	72	Slurry	300	25	7500	\$1,791.08
ASHFORD	76 TH AV	CUL-DE-SA	Local	82	72	Slurry	1045	25	26125	\$6,238.92
BENISH	WALNUT ST	MORNING H DR	Local	82	72	Slurry	840	25	21000	\$5,015.02
BEREA	CRESMER DR	GARRETT ST	Local	82	72	Slurry	430	25	10750	\$2,567.21
BRIM	CUL-DE-SA	BENCHVIEW TR	Local	82	72	Slurry	690	25	17375	\$4,149.45
BROADMOOR	END	WHITEHALL LN	Local	82	72	Slurry	305	25	7625	\$1,820.93
CLINTON	67 TH AV	END	Local	82	72	Slurry	130	25	3250	\$776.13
COOK	107 TH AV	WATKINS AV	Local	82	72	Slurry	495	25	12375	\$2,955.28
Sub Total										\$585,211.60
Engineering & Admin=10%, Overlay Cost=\$1.492/s.f. , Thin Overlay=\$0.716/s.f. Slurry Cost = \$0.238/s.f.										\$58,521.16
Total										\$643,733
Accumulated Reserve Total										\$709,035.18

Road Name	Limits From	To	Classification	1999 PCI	2010 PCI	FY 2010-2011 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
68 TH	HAINES RD	PACIFIC HW	Collector	76	54	Overlay	1930	35	67550	\$103,847.47
DARTMOUTH	PACIFIC HW	PACIFIC HW	Collector	76	54	Overlay	220	35	7700	\$11,837.54
FONNER	ERROL ST	WALNUT ST	Collector	71	49	Overlay	330	35	11550	\$17,756.30
MAIN	PACIFIC HW	FANNO CRE BR	Collector	76	54	Overlay	305	35	10675	\$16,411.13
68 TH	ELMHURST ST	HAINES RD	Collector	94	72	Thin Overlay	2275	35	79625	\$58,757.22
121 ST	SPRINGWOOD DR	SCHOLLS F RD	Collector	100	78	Thin Overlay	750	35	26250	\$19,370.51
HAMPTON	68 TH PW	68 TH PW	Collector	100	78	Thin Overlay	225	35	7875	\$5,811.15
HOWARD	121 ST AV	68 TH AV	Collector	100	78	Thin Overlay	1730	35	60725	\$44,810.41
DARTMOUTH	PACIFIC HW	69 TH AV	Collector	100	78	Thin Overlay	2975	35	104125	\$76,836.37
100 TH	KABLE ST	KABLE ST	Neigh'd Route	70	59	Thin Overlay	429	30	12870	\$9,497.09
68 TH	HAMPTON ST	ELMHURST ST	Neigh'd Route	93	82	Thin Overlay	1552	30	46560	\$34,357.76
74 TH	END	SPRUCE ST	Neigh'd Route	78	67	Thin Overlay	590	30	17700	\$13,061.26
74 TH	BARBARA LN	TAYLORS F RD	Neigh'd Route	90	79	Thin Overlay	1490	30	44700	\$32,985.22
78 TH	PPAFFLE ST	PPAFFLE ST	Neigh'd Route	90	79	Thin Overlay	1195	30	35850	\$26,454.59
78 TH	DURHAM RD	BOND ST	Neigh'd Route	95	84	Thin Overlay	1635	30	49050	\$36,810.06
79 TH	MARA CT	BONITA RD	Neigh'd Route	85	74	Thin Overlay	100	30	3000	\$2,213.77
87 TH	PACIFIC HW	CENTER ST	Local	78	67	Slurry	250	25	6250	\$1,537.34
89 TH	END	END	Local	78	67	Slurry	445	25	11125	\$2,736.47
OLD ORCHARD	SUMMERFIE DR	SUMMERFIE DR	Local	78	67	Slurry	330	25	8250	\$2,029.29
SERENA	SERENA WY	DURHAM RD	Local	82	71	Slurry	210	25	5250	\$1,291.37
EDGEWOOD	OMARA ST	OMARA ST	Local	84	73	Slurry	2670	25	66750	\$16,418.82
76 TH	VARNS ST	CRESVIEW ST	Local	69	69	Slurry	330	25	8250	\$2,029.29
91 ST	GREENBURG RD	CUL-DE-SA	Local	80	69	Slurry	725	25	18125	\$4,458.29
CORYLUS	CUL-DE-SA	HAZELTREE TR	Local	80	69	Slurry	372	25	9300	\$2,287.57
GARDEN PARK	110 TH AV	110 TH AV	Local	80	69	Slurry	1115	25	27875	\$6,856.55
FAIRVIEW	FAIRVIEW CT	CUL-DE-SA	Local	82	71	Slurry	560	25	14000	\$3,443.65
FANNO CREEK	FANNO CRE CT	FANNO CRE CT	Local	82	71	Slurry	550	25	13750	\$3,382.15
GARRETT	ASH AV	CRESMER DR	Local	82	71	Slurry	690	25	17250	\$4,243.06
GENTLEWOODS	ASHFORD ST	ASHFORD ST	Local	82	71	Slurry	150	25	3750	\$922.41
GREENLEAF	GREENS WY	CUL-DE-SA	Local	82	71	Slurry	264	25	6600	\$1,623.43
GREENFIELD	RIDGEFIEL LN	BENCHVIEW TR	Local	82	71	Slurry	765	25	19125	\$4,704.27
KENT	CUL-DE-SA	GREENLAND DR	Local	82	71	Slurry	440	25	11000	\$2,705.72
LEAH	END	END	Local	82	71	Slurry	585	25	14625	\$3,597.38
LIDEN	WILTON AV	MARCIA DR	Local	82	71	Slurry	905	25	22625	\$5,565.18
LUKAR	ASCENSION DR	END	Local	82	71	Slurry	195	25	4875	\$1,199.13
MILLEN/94TH	MILLEN DR	MILLEN DR	Local	82	71	Slurry	240	25	6000	\$1,475.85
MURDOCK	103 RD AV	98 TH AV	Local	82	71	Slurry	1470	25	36750	\$9,039.57
NORTHVIEW	140 TH TE	MARCIA DR	Local	82	71	Slurry	460	25	11500	\$2,828.71
OAKTREE	ALDERBROO CR	ALDERBROO CR	Local	82	71	Slurry	810	25	20250	\$4,980.99
OXALIS	ASCENSION DR	END	Local	82	71	Slurry	180	25	4500	\$1,106.89
PATHFINDER	107 TH CT	CUL-DE-SA	Local	82	71	Slurry	345	25	8625	\$2,121.53
RACELY	LEAH TE	CUL-DE-SA	Local	82	71	Slurry	235	25	5875	\$1,445.10
RIDGEFIELD	END	WILMINGTON LN	Local	82	71	Slurry	85	25	2125	\$522.70
RIDGEFIELD	WILMINGTON LN	CUL-DE-SA	Local	82	71	Slurry	740	25	18500	\$4,850.53
ROCKINGHAM	END	132 ND AV	Local	82	71	Slurry	730	25	18250	\$4,489.04
Sub Total										\$589,665.18
Engineering & Admin=10%, Overlay Cost=\$1.537/s.f. , Thin Overlay=\$0.737/s.f. Slurry Cost=\$0.245/s.f.										\$58,966.52
Total										\$648,632
Accumulated Reserve Total										\$860,403.49

Road Name	Limits From	To	Classification	FY 2011-2012		Prj_length	Width	Area (s.f.)	Cost
				1999 PCI	2011 PCI				
FONNER	CITY LIMI	115 TH AV	Collector	100	76 *Reconstruction	1290	35	45150	\$270,900.00
FONNER	115 TH AV		Collector	82	58 *Reconstruction	175	35	6125	\$36,750.00
FONNER	CITY LIMI	107 TH CT	Collector	82	58 *Reconstruction	680	35	23800	\$142,800.00
FONNER	107 TH CT	ERROL ST	Collector	82	58 *Reconstruction	680	35	23800	\$142,800.00
FONNER	113 TH PL	CITY LIMI	Collector	100	76 *Reconstruction	830	35	29050	\$174,300.00
TIEDEMAN	106 TH AV	MEADOW ST	Collector	100	76 Thin Overlay	1010	35	35350	\$25,968.19
TIEDEMAN	MEADOW ST	TIGARD ST	Collector	100	76 Thin Overlay	990	35	34650	\$26,336.15
WALNUT	PATHFINDER CT	GRANT AV	Collector	100	76 Thin Overlay	950	35	33250	\$25,272.06
ALDERBROOK	ALDERBROO DR	ALDERBROO DR	Neigh'd Route	72	60 Thin Overlay	1745	30	52350	\$39,789.25
ALDERBROOK	ALDERBROO DR	ALDERBROO DR	Neigh'd Route	83	71 Thin Overlay	1745	30	52350	\$39,789.25
ASH	100 TH AV	COWLES CT	Neigh'd Route	88	76 Thin Overlay	465	30	13950	\$10,602.87

APPENDIX A-2

ASH	GARRETT ST	HILL ST	Neigh'd Route	92	80 Thin Overlay	1565	30	46950	\$35,684.91
BENCHVIEW	BRIM PL	CLEARVIEW WY	Neigh'd Route	85	73 Thin Overlay	1025	30	30750	\$23,371.91
CANTERBURY	109 TH AV	103 RD AV	Neigh'd Route	90	78 Thin Overlay	1170	30	35100	\$27,478.52
COMMERCIAL	HALL BL	MAIN ST	Neigh'd Route	92	80 Thin Overlay	1765	30	52950	\$41,452.64
FALCON RISE	MORNING H DR	125 TH CT	Neigh'd Route	90	78 Thin Overlay	1294	30	38820	\$30,390.78
FREWING	CUL-DE-SA	ASH AV	Neigh'd Route	82	70 Thin Overlay	275	30	8250	\$6,458.63
FREWING	OMARA ST	ASH AV	Neigh'd Route	86	74 Thin Overlay	590	30	17700	\$13,856.69
GRANETT	CRESMER DR	PACIFIC HW	Neigh'd Route	93	81 Thin Overlay	860	30	25800	\$20,197.89
GRANT	PARK ST	PARK ST	Neigh'd Route	85	73 Thin Overlay	180	30	5400	\$4,227.47
GRANT	PARK ST	SCHOOL ST	Neigh'd Route	83	71 Thin Overlay	612	30	18360	\$14,373.38
GRANT	WALNUT ST	MCKENZIE ST	Neigh'd Route	82	81 Thin Overlay	455	30	13650	\$10,686.09
GRANT	MCKENZIE ST	JOHNSON ST	Neigh'd Route	90	78 Thin Overlay	540	30	16200	\$12,682.40
GRANT	CUL-DE-SA	GRANT CT	Neigh'd Route	85	73 Thin Overlay	300	30	9000	\$7,045.78
HILLSHIRE	BLUE GUM CT	WESTRIDGE TE	Neigh'd Route	90	78 Thin Overlay	745	30	22350	\$17,497.01
MCDONALD	PACIFIC HW	105 TH AV	Neigh'd Route	92	80 Thin Overlay	404	30	12120	\$9,488.31
NORTH DAKOTA	115 TH AV	114 TH PL	Neigh'd Route	83	71 Thin Overlay	275	30	8250	\$6,458.63
STARVIEW	END	END	Local	82	70 Slurry	170	25	4250	\$1,076.75
TALON	AERIE DR	END	Local	82	70 Slurry	125	25	3125	\$791.73
TANGELA	95 TH AV	CUL-DE-SA	Local	82	70 Slurry	335	25	8375	\$2,121.84
TANOAK	BRIM PL	CUL-DE-SA	Local	82	70 Slurry	335	25	8375	\$2,121.84
TERRACE TRAILS	CUL-DE-SA	115 TH AV	Local	82	70 Slurry	1015	25	25375	\$6,428.86
VARNIS	72 ND AV	END	Local	82	70 Slurry	140	25	3500	\$886.74
WAGONER	MISTLETOE DR	CUL-DE-SA	Local	82	70 Slurry	255	25	6375	\$1,615.13
WATKINS	CUL-DE-SA	WATKINS AV	Local	82	70 Slurry	370	25	9250	\$2,343.52
WELLINGTON	CUL-DE-SA	ROCKINGHAM DR	Local	82	70 Slurry	415	25	10375	\$2,658.55
WHITEHALL	135 TH AV	BROADMOOR PL	Local	82	70 Slurry	250	25	6250	\$1,583.46
WHITECEDAR	CUL-DE-SA	BENCHVIEW TR	Local	82	70 Slurry	520	25	13000	\$3,293.60
WILMINGTON	END	RIDGEFIELD LN	Local	82	70 Slurry	475	25	11875	\$3,008.58
WINTERLAKE	CUL-DE-SA	WINTERLAK DR	Local	82	70 Slurry	225	25	5625	\$1,425.12
WOODSHIRE	MORNINGST DR	FERNRIDGE TE	Local	82	70 Slurry	560	25	14000	\$3,546.96
122 ND	KATHERINE ST	CUL-DE-SA	Local	82	70 Slurry	535	25	13375	\$3,388.61
123 RD	WALNUT ST	CUL-DE-SA	Local	82	70 Slurry	340	25	8500	\$2,152.51
123 RD	GAARDE ST	AERIE DR	Local	82	70 Slurry	170	25	4250	\$1,076.75
124 TH	AERIE DR	END	Local	82	70 Slurry	250	25	6250	\$1,583.46
129 TH	MORNINGST DR	END	Local	82	70 Slurry	180	25	4500	\$1,140.09
133 RD	BENISH ST	BENISH ST	Local	82	70 Slurry	150	25	3750	\$950.08
FIR	72 ND AV	72 ND AV	Local	84	72 Slurry	935	25	23375	\$5,922.15
GREENLEAF	SUMMERFIE DR	GREENS WY	Local	84	72 Slurry	1220	25	30500	\$7,727.30
AERIE	TALON LN	CUL-DE-SA	Local	84	72 Slurry	180	25	3750	\$950.08
ELITE GUM	HILLSHIRE DR	CUL-DE-SA	Local	83	71 Slurry	260	25	6500	\$1,646.80
BROOKSIDE	BROOKSIDE AV	CUL-DE-SA	Local	83	71 Slurry	315	25	7875	\$1,995.16
FANNO CREEK	FANNO CRE LP	FANNO CRE DR	Local	83	71 Slurry	710	25	17750	\$4,497.03
SUMMERCREST	NORTH DAK ST	121 ST AV	Local	84	72 Slurry	1729	25	43225	\$10,951.23
COPPER CREEK	RIVERWOOD LN	CUL-DE-SA	Local	84	72 Slurry	1945	25	48625	\$12,319.34
69 TH	HAMPTON ST	HAMPTON ST	Local	84	72 Slurry	175	25	4375	\$1,108.42
88 TH	REILING ST	END	Local	84	72 Slurry	130	25	3250	\$823.40
89 TH	CUL-DE-SA	CUL-DE-SA	Local	84	72 Slurry	550	25	13750	\$3,483.62
Sub Total									\$1,320,762.56
Engineering & Admin=10%, Overlay Cost=\$1,583/s.f. , Thin Overlay=\$0.760/s.f. Slurry Cost=\$0.253/s.f. ReconstrTotal									\$132,076.26
									\$1,452,839
Accumulated Reserve Total									\$207,564.68

Road Name	Limits From	To	Classification 1999 PCI	2012PCI	FY 2012-2013 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
NORTH DAKOTA	GREENBURG RD	GREENBURG RD	Neigh'd Route	85	72 Thin Overlay	390	30	11700	\$9,159.51
NORTH DAKOTA	95 TH AV	95 TH AV	Neigh'd Route	85	72 Thin Overlay	280	30	8400	\$6,576.06
NORTH DAKOTA	94 TH AV	90 TH AV	Neigh'd Route	85	72 Thin Overlay	1115	30	33450	\$26,186.80
OMARA	MCDONALD ST	HILL ST	Neigh'd Route	85	72 Thin Overlay	1970	30	59100	\$46,267.26
OMARA	CHSELSEA LP	HILL ST	Neigh'd Route	77	Thin Overlay	1290	30	38700	\$30,296.41
SATTTLER	100 TH AV	100 TH AV	Neigh'd Route	93	80 Thin Overlay	195	30	5850	\$4,579.75
SATTTLER	98 TH AV	96 TH AV	Neigh'd Route	93	80 Thin Overlay	510	30	15300	\$11,977.82
SATTTLER	96 TH AV	92 ND AV	Neigh'd Route	90	77 Thin Overlay	1320	30	39600	\$31,001.41
SATTTLER	91 ST AV	91 ST AV	Neigh'd Route	90	77 Thin Overlay	265	30	7950	\$6,223.77
SATTTLER	91 ST AV	91 ST AV	Neigh'd Route	90	77 Thin Overlay	120	30	3600	\$2,818.31
SATTTLER	NO NAME DR	HALL BL	Neigh'd Route	88	75 Thin Overlay	990	30	29850	\$23,368.49
SEQUOIA PARKWAY	BOONESFER RD	BOONESFER RD	Neigh'd Route	92	79 Thin Overlay	3080	30	92550	\$72,454.59
SPRINGWOOD	SUMMER LA DR	NORTH DAK ST	Neigh'd Route	97	84 Thin Overlay	795	30	23700	\$18,553.87
SPRINGWOOD	IRONWOOD LP	IRONWOOD LP	Neigh'd Route	81	68 Thin Overlay	215	30	6450	\$5,049.47
SPRINGWOOD	SCHOLLS F RD	SCHOLLS F RD	Neigh'd Route	81	68 Thin Overlay	490	30	14700	\$11,508.10
SPRINGBROOK	BARROWS (RD	TALLWOOD DR	Neigh'd Route	90	77 Thin Overlay	360	30	10800	\$8,454.93
SUMMERFIELD	114 TH CT	98 TH AV	Neigh'd Route	87	74 Thin Overlay	3680	30	110400	\$86,428.18
SUMMERFIELD	114 TH AV	DURHAM RD	Neigh'd Route	90	77 Thin Overlay	300	30	9000	\$7,045.78
SUMMERFIELD	ALDERBROO DR	ALDERBROO DR	Neigh'd Route	78	65 Thin Overlay	1080	30	32400	\$25,364.79
TIGARD	115 TH AV	TWIN PARK PL	Neigh'd Route	94	81 Thin Overlay	950	30	28500	\$22,311.62
TIGARD	TWIN PARK PL	FANNO CRE BR	Neigh'd Route	87	74 Thin Overlay	1862	30	55860	\$43,730.78
TIGARD	FANNO CRE BR	TIEDEMAN AV	Neigh'd Route	90	77 Thin Overlay	370	30	11100	\$8,689.79
ALBERTA	END	121 ST AV	Local	84	71 Slurry	660	25	16500	\$4,305.75
AMBIANCE	GENESIS LP	CUL-DE-SA	Local	84	71 Slurry	460	25	11500	\$3,000.98
FANNO CREEK	80 TH CT	FANNO CRE PL	Local	84	71 Slurry	165	25	4125	\$1,076.44
FANNO CREEK	FANNO CRE CT	COLONY CR CT	Local	84	71 Slurry	220	25	5500	\$1,435.25
FERN	138 TH AV	CITY LIM	Local	84	71 Slurry	400	25	10000	\$7,609.55
GREENLEAF	GREENS WY	GREENS WY	Local	84	71 Slurry	400	25	10000	\$2,609.55
KNOLL	HALL BL	HUNZIKER ST	Local	84	71 Slurry	785	25	19625	\$5,121.23
LAKEWOOD	IRONWOOD LP	CUL-DE-SA	Local	84	71 Slurry	370	25	9250	\$2,413.83
MARA	CUL-DE-SA	79 TH AV	Local	84	71 Slurry	290	25	7250	\$1,891.92
MILTON	BONITA RD	CUL-DE-SA	Local	84	71 Slurry	1520	25	38000	\$9,916.28
MINT	BOXELDER ST	CUL-DE-SA	Local	84	71 Slurry	335	25	8375	\$2,185.50
MOUNTAIN RIDGE	CUL-DE-SA	CUL-TH AV	Local	84	71 Slurry	295	25	7375	\$1,924.54
NOVA	CUL-DE-SA	GENESIS LP	Local	84	71 Slurry	275	25	6875	\$1,794.06
PICKS	103 RD AV	SERENA WY	Local	84	71 Slurry	120	25	3000	\$782.86
PICKS	SERENA WY	SERENA WY	Local	84	71 Slurry	200	25	5000	\$1,304.77
REILING	88 TH AV	CUL-DE-SA	Local	84	71 Slurry	645	25	16125	\$4,207.89
SYLVAN	CUL-DE-SA	SERENA WY	Local	84	71 Slurry	265	25	6625	\$1,728.82
WILLOWBROOK	END	109 TH AV	Local	84	71 Slurry	120	25	3000	\$782.86
100 TH	LADY MARI DR	MURDOCK ST	Local	84	71 Slurry	845	25	21125	\$5,512.67
ASHBURY	SWENDON LP	SWENDON LP	Local	85	72 Slurry	370	25	9250	\$2,413.83
FERNRIDGE	END	MORNINGST DR	Local	86	73 Slurry	470	25	11750	\$3,066.22
WAVERLY	92 ND AV	END	Local	86	73 Slurry	1215	25	30375	\$7,926.50
BASSWOOD	CUL-DE-SA	IRONWOOD LP	Local	86	73 Slurry	352	25	8800	\$2,296.40
BOXELDER	MINT PL	ESSEX DR	Local	86	73 Slurry	240	25	6000	\$1,565.73
CHIMNEY RIDGE	MORNING H DR	131 ST AV	Local	86	73 Slurry	520	25	13000	\$3,392.41
ESSEX	HILLSHIRE DR	BOXELDER ST	Local	86	73 Slurry	1590	25	39750	\$10,372.95
FANNO CREEK	CUL-DE-SA	CUL-DE-SA	Local	86	73 Slurry	270	25	6750	\$1,761.44
MARCIA	139 TH AV	LIDEN DR	Local	86	73 Slurry	725	25	18125	\$4,729.80
113 TH	FONNER ST	END	Local	86	73 Slurry	475	25	11875	\$3,098.84
118 TH	CUL-DE-SA	SPRINGWOOD DR	Local	86	73 Slurry	475	25	11875	\$3,098.84
67 TH	CUL-DE-SA	OAK ST	Local	88	75 Slurry	255	25	6375	\$1,663.59
69 TH	OAK ST	END	Local	88	75 Slurry	275	25	6875	\$1,794.06
FAIRVIEW	CUL-DE-SA	FAIRVIEW LN	Local	88	75 Slurry	355	25	8875	\$2,215.97
WEAVER	FANNO CRE DR	END	Local	88	75 Slurry	140	25	3500	\$913.34
123 RD	END	MARION ST	Local	88	75 Slurry	130	25	3250	\$848.10
76 TH	BOND ST	END	Local	95	82 Slurry	255	25	6375	\$1,663.59
91 ST	CUL-DE-SA	NORTH DAK ST	Local	95	82 Slurry	495	25	12375	\$3,229.31
94 TH	GREENBURG RD	CUL-DE-SA	Local	95	82 Slurry	154	25	3850	\$1,004.68
FANNO CREEK	END	BOONESFER RD	Local	95	82 Slurry	390	25	9750	\$2,544.31
109 TH	NAEVE ST	NAEVE ST	Local	95	82 Slurry	500	25	12500	\$3,261.93
Sub Total									\$625,613.95
Engineering & Admin=10%, Overlay Cost=\$1,630/s.f. , Thin Overlay=\$0.782/s.f. Slurry Cost=\$0.260/s.f. ReconstrTotal									\$62,561.40
									\$688,175
Accumulated Reserve Total									\$319,389.33

Road Name	Limits From	To	Classification 1999 PCI	2013 PCI	FY 2013-2014 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
VENTURA	72 ND AV	VENTURA PL	Neigh'd Route	83	69 Thin Overlay	1840	30	55200	\$44,510.51
VENTURA	VENTURA DR	CUL-DE-SA	Neigh'd Route	88	74 Thin Overlay	355	30	10650	\$8,587.63
WALNUT	PACIFIC HW	PACIFIC HW	Neigh'd Route	87	73 Thin Overlay	325	30	9750	\$7,861.91
WATKINS	PACIFIC HW	DERRY DEL CT	Neigh'd Route	85	71 Thin Overlay	1697	30	50910	\$41,051.27
WINTERLAKE	CUL-DE-SA	SHORE DR	Neigh'd Route	90	76 Thin Overlay	2030	30	60900	\$49,106.70

100 TH	SATTLER ST	LADY MARI DR	Neigh'd Route	93	79 Thin Overlay	250	30	7500	\$6,047.62
100 TH	MURDOCK ST	PEMBROOK ST	Neigh'd Route	85	71 Thin Overlay	350	30	10500	\$8,466.67
100 TH	INEZ ST	MCDONALD ST	Neigh'd Route	85	71 Thin Overlay	1445	30	43350	\$34,955.27
108 TH	TUALATIN DR	TITAN LN	Neigh'd Route	93	79 Thin Overlay	985	30	29550	\$23,827.64
110 TH	FAIRHAVEN ST	PARK ST	Neigh'd Route	80	66 Thin Overlay	789	30	23670	\$19,086.30
115 TH	GAARDE ST	GENESIS LP	Neigh'd Route	85	71 Thin Overlay	2164	30	64920	\$52,348.23
116 TH	END	WALNUT ST	Neigh'd Route	92	78 Thin Overlay	1025	30	30750	\$24,795.26
116 TH	ANN ST	KATHERINE ST	Neigh'd Route	85	71 Thin Overlay	1020	30	30600	\$24,674.30
116 TH	BEEF BEND RD	CUL-DE-SA	Neigh'd Route	85	71 Thin Overlay	670	30	20100	\$16,207.63
127 TH	128 TH AV	KATHERINE ST	Neigh'd Route	90	76 Thin Overlay	1500	30	45000	\$36,285.74
127 TH	CUL-DE-SA	FALCON RI DR	Neigh'd Route	85	71 Thin Overlay	505	30	15150	\$12,216.20
128 TH	WALNUT ST	FALCON RI DR	Neigh'd Route	90	76 Thin Overlay	2335	30	70050	\$56,484.81
128 TH	CUL-DE-SA	FALCON RI DR	Neigh'd Route	85	71 Thin Overlay	515	30	15450	\$12,458.10
130 TH	CUL-DE-SA	STARVIEW DR	Neigh'd Route	90	76 Thin Overlay	945	30	28350	\$22,860.02
135 TH	WESTRIDGE TE	LAUREN LN	Neigh'd Route	90	76 Thin Overlay	320	30	9600	\$7,740.96
135 TH	LAUREN LN	WALNUT LN	Neigh'd Route	90	76 Thin Overlay	1350	30	40500	\$32,657.17
69 TH	HAMPTON ST	DAKTMOUTH ST	Local	100	86 Slurry	1470	25	36750	\$9,877.79
113 TH	END	CITY LIMI	Local	61	47 Overlay	580	25	14500	\$24,958.48
82 ND	PPAFFLE ST	PPAFFLE ST	Local	64	50 Slurry	370	25	9250	\$2,486.25
ASH	HILL ST	HILL ST	Local	71	57 Overlay	270	25	6750	\$11,339.29
BROOK	CUL-DE-SA	124 TH AV	Local	76	62 Slurry	295	25	7375	\$1,982.28
CARMEN	121 ST AV	121 ST AV	Local	67	53 Overlay	500	25	12500	\$20,998.69
CENTER	GREENBURG RD	GREENBURG RD	Local	67	53 Overlay	500	25	12500	\$20,998.69
CENTER	GREENBURG RD	87 TH AV	Local	71	57 Overlay	422	25	10550	\$17,722.90
DANNIS	CUL-DE-SA	113 TH PL	Local	76	62 Slurry	264	25	6600	\$3,773.97
ELECTRIC	MAIN ST	END	Local	74	60 Slurry	180	25	4500	\$1,209.52
Sub Total									\$654,977.81
Engineering & Admin=10%,									\$65,497.78
Overlay Cost=\$1.679/s.f. , Thin Overlay=\$0.806/s.f. Slurry Cost=\$0.268/s.f. ReconstrTotal									\$720,476
Accumulated Reserve Total									\$398,913.75

Road Name	Limits From	To	Classification	1999 PCI	2014 PCI	FY 2014-2015 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
COMMERCIAL	PACIFIC HW	95 TH AV	Neigh'd Route	100	88	*Reconstruction	1675	30	50250	\$329,457.19
91 ST	REILLING ST	CUL-DE-SA	Neigh'd Route	93	78	Thin Overlay	550	30	16500	\$13,703.92
98 TH	ELROSE ST	MCDONALD ST	Neigh'd Route	100	85	Thin Overlay	325	30	9750	\$8,097.77
98 TH	CUL-DE-SA	ELROSE ST	Neigh'd Route	95	80	Thin Overlay	310	30	9300	\$7,724.02
ALDERBROOK	ALDERBROO DR	END	Neigh'd Route	100	85	Thin Overlay	280	30	8400	\$6,976.54
ALDERBROOK	DURHAM RD	SATTLER ST	Neigh'd Route	100	85	Thin Overlay	2855	30	85650	\$71,135.78
ALDERBROOK	ALDERBROO DR	END	Neigh'd Route	100	85	Thin Overlay	310	30	9300	\$7,724.02
KABLE	END	100 TH AV	Neigh'd Route	100	85	Thin Overlay	1450	30	43500	\$36,128.50
KABLE	100 TH AV	98 TH AV	Neigh'd Route	97	82	Thin Overlay	380	30	11400	\$9,468.16
MORNING HILL	135 TH AV	FALCON RI DR	Neigh'd Route	100	85	Thin Overlay	634	30	19020	\$15,796.88
NAEVE	PACIFIC HW	PACIFIC HW	Neigh'd Route	100	85	Thin Overlay	540	30	16200	\$13,454.75
NAEVE	ROYALTY PW	109 TH AV	Neigh'd Route	100	85	Thin Overlay	895	30	26850	\$22,300.01
NORTH DAKOTA	SCHOLLS F RD	PRIVATE RD	Neigh'd Route	100	85	Thin Overlay	620	30	18600	\$15,448.05
NORTH DAKOTA	PRIVATE RD	SPRINGWOOD DR	Neigh'd Route	100	85	Thin Overlay	245	30	7350	\$6,104.47
NORTH DAKOTA	114 TH PL	112 TH AV	Neigh'd Route	100	85	Thin Overlay	625	30	18750	\$15,572.63
NORTH DAKOTA	109 TH AV	PRIVATE RD	Neigh'd Route	100	85	Thin Overlay	950	30	28500	\$23,670.40
OAK	69 TH AV	65 TH AV	Neigh'd Route	100	85	Thin Overlay	960	30	28800	\$23,919.56
PINE	72 ND AV	71 ST AV	Neigh'd Route	100	85	Thin Overlay	450	30	13500	\$11,212.29
PINE	71 ST AV	69 TH AV	Neigh'd Route	100	85	Thin Overlay	640	30	19200	\$15,946.37
ROYALTY	PACIFIC HW	NAEVE ST	Neigh'd Route	100	85	Thin Overlay	1035	30	31050	\$25,788.28
ROYALTY	PACIFIC HW	109 TH AV	Neigh'd Route	100	85	Thin Overlay	1205	30	36150	\$30,024.03
SUMMERFIELD	CUL-DE-SA	ALDERBROO DR	Neigh'd Route	100	85	Thin Overlay	175	30	5250	\$4,360.34
SUMMERFIELD	98 TH AV	ALDERBROO DR	Neigh'd Route	100	85	Thin Overlay	940	30	28200	\$23,421.24
GRANT	JOHNSON ST	TIGARD ST	Local	93	78	Slurry	1090	25	27250	\$7,544.07
LOMITA	90 TH AV	90 TH AV	Local	66	51	Slurry	335	25	8375	\$2,318.59
PARK	110 TH AV	DERRY DEL CT	Local	71	56	Slurry	280	25	7000	\$1,937.93
ROSE VISTA	121 ST AV	GAARDE ST	Local	76	61	Slurry	1085	25	27125	\$7,509.47
TECH CENTER	END	72 ND AV	Local	72	57	Slurry	1210	25	30250	\$8,374.61
WARNER	PACIFIC HW	END	Local	76	61	Slurry	275	25	6875	\$1,903.32
100 TH	MCDONALD ST	ASH AV	Local	74	59	Slurry	575	25	14375	\$3,979.67
124 TH	WALNUT ST	WALNUT ST	Local	75	60	Slurry	475	25	11875	\$3,287.56
124 TH	ANN CT	KATHERINE ST	Local	75	60	Slurry	540	25	13500	\$3,737.43
129 TH	END	128 TH AV	Local	72	57	Overlay	319	25	7975	\$13,799.08
66 TH	FRANKLIN ST	CUL-DE-SA	Local	85	70	Slurry	185	25	4625	\$1,280.42
66 TH	OAK ST	TAYLORS F RD	Local	100	85	Slurry	625	25	15625	\$4,325.73
69 TH	HAMPTON ST	HAMPTON ST	Local	100	85	Slurry	580	25	14500	\$4,014.28
70 TH	END	HAMPTON ST	Local	85	70	Slurry	520	25	13000	\$3,599.01
74 TH	DURHAM RD	BONITA RD	Local	95	80	Slurry	4670	25	116750	\$32,321.86

76 TH	BOND ST	BOND ST	Local	90	75 Slurry	145	25	3625	\$1,003.57
76 TH	FIR ST	VARNS ST	Local	91	76 Slurry	515	25	12875	\$3,564.40
78 TH	PACIFIC HW	PPAFFLE ST	Local	85	70 Slurry	317	25	7925	\$2,194.01
								Sub Total	\$844,130.22
Engineering & Admin=10%, Overlay Cost=\$1.730/s.f.Thin Overlay=\$0.830/s.f. Slurry Cost=\$0.276/s.f. ReconstructTotal									\$84,413.02
									\$928,543
Accumulated Reserve Total									\$270,370.50

Road Name	Limits From	To	Classification	1999 PCI	2015 PCI	FY 2015-2016 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
VENTURA	BARBARA LN	ALFRED ST	Neigh'd Route	97	81	Thin Overlay	1480	30	44400	\$37,982.27
VENTURA/69TH	CUL-DE-SA	VENTURA CT	Neigh'd Route	95	79	Thin Overlay	211	30	6330	\$5,415.04
VENTURA	VENTURA CT	CUL-DE-SA	Neigh'd Route	93	77	Thin Overlay	550	30	16500	\$14,115.03
WATKINS	DERRY DEL CT	WATKINS PL	Neigh'd Route	100	84	Thin Overlay	365	30	10950	\$9,367.25
WINTERLAKE	WINTERLAK CT	SCHOLLS F RD	Neigh'd Route	100	84	Thin Overlay	1640	30	49200	\$42,088.46
103 RD	RIVERWOOD LN	DURHAM RD	Neigh'd Route	100	84	Thin Overlay	1545	30	46350	\$39,650.41
100 TH	PINEBROOK ST	INSEZ ST	Neigh'd Route	100	84	Thin Overlay	330	30	9900	\$8,469.02
110 TH	GAARDE ST	FAIRHAVEN ST	Neigh'd Route	100	84	Thin Overlay	1245	30	37350	\$31,951.30
115 TH	114 TH AV	BAMBI LN	Neigh'd Route	97	81	Thin Overlay	565	30	16950	\$14,499.99
115 TH	TIGARD ST	NORTH DAK ST	Neigh'd Route	100	84	Thin Overlay	910	30	27300	\$23,353.96
115 TH	NORTH DAK ST	SPRINGWOOD DR	Neigh'd Route	100	84	Thin Overlay	1765	30	52950	\$45,296.42
116 TH	END	TIGARD DR	Neigh'd Route	97	81	Thin Overlay	385	30	11550	\$9,880.52
116 TH/KATHERINE	116 TH AV	116 TH AV	Neigh'd Route	100	84	Thin Overlay	158	30	4740	\$4,054.86
116 TH	CUL-DE-SA	FAIRVIEW LN	Neigh'd Route	93	77	Thin Overlay	211	30	6330	\$5,415.04
131 ST	WALNUT ST	BENISH ST	Neigh'd Route	100	84	Thin Overlay	1065	30	31950	\$27,331.84
131 ST	CUL-DE-SA	HAWKS BEA ST	Neigh'd Route	100	84	Thin Overlay	245	30	7350	\$6,287.61
81 ST	PPAFFLE ST	STEVE ST	Local	88	72	Slurry	950	25	23750	\$6,772.36
83 RD	PPAFFLE ST	CUL-DE-SA	Local	90	74	Slurry	1335	25	33375	\$9,516.95
87 TH	PINEBROOK ST	CUL-DE-SA	Local	80	64	Slurry	300	25	7500	\$2,138.64
88 TH	SATTLER ST	REILING ST	Local	90	74	Slurry	425	25	10625	\$3,029.74
88 TH	PINEBROOK ST	CUL-DE-SA	Local	91	75	Slurry	400	25	10000	\$2,851.52
89 TH	END	END	Local	87	71	Slurry	115	25	2875	\$819.81
89 TH	CUL-DE-SA	SCHECKLA DR	Local	90	74	Slurry	205	25	5125	\$1,461.40
89 TH	CUL-DE-SA	REILING ST	Local	87	71	Slurry	170	25	4250	\$1,211.90
92 ND	CENTER ST	NORTH DAK ST	Local	100	84	Slurry	868	25	21700	\$6,187.80
92ND/MURDOCK	92 ND AV	CUL-DE-SA	Local	90	74	Slurry	175	25	4375	\$1,247.54
94 TH	CUL-DE-SA	NORTH DAK ST	Local	85	69	Slurry	350	25	8750	\$2,495.08
94 TH	CUL-DE-SA	VIEW TR	Local	88	72	Slurry	170	25	4250	\$1,211.90
96 TH	SATTLER ST	MURDOCK ST	Local	93	77	Slurry	895	25	22375	\$6,380.88
AERIE	CUL-DE-SA	TALON LN	Local	85	69	Slurry	325	25	8125	\$2,316.86
ALBERTA	END	END	Local	87	71	Slurry	410	25	10250	\$2,922.81
ALPINE VIEW	MISTLETOE DR	134 TH DR	Local	90	74	Slurry	250	25	6250	\$1,782.20
ALPINE VIEW	133 RD AV	END	Local	90	74	Slurry	160	25	4000	\$1,140.61
ANN	CUL-DE-SA	121 ST AV	Local	83	67	Slurry	440	25	11000	\$3,136.67
ANN	121 ST AV	116 TH AV	Local	85	69	Slurry	1030	25	25750	\$7,342.67
ASH	END	BURNHAM ST	Local	85	69	Slurry	285	25	7125	\$2,311.71
ASH	ASH AV	ASH AV	Local	95	79	Slurry	1365	25	34125	\$9,730.82
ASHWOOD	CUL-DE-SA	HAZELWOOD LP	Local	87	71	Slurry	317	25	7925	\$2,259.83
ASPIRE RIDGE	END	BULL MOUN RD	Local	85	69	Slurry	1525	25	38125	\$10,871.43
ATLANTA	70 TH AV	67 TH AV	Local	95	79	Slurry	614	25	15350	\$4,377.09
AVON	88 TH AV	CUL-DE-SA	Local	87	71	Slurry	395	25	9875	\$2,815.88
BARBARA/70TH	BARBARA LN	CUL-DE-SA	Local	83	67	Slurry	220	25	5500	\$1,568.34
BARNUM	GARRETT ST	BARNUM/98 DR	Local	85	69	Slurry	345	25	8625	\$2,459.49
BARNUM/98TH	BARNUM DR	CUL-DE-SA	Local	85	69	Slurry	140	25	3500	\$998.03
BAYLOR	72 ND AV	68 TH PW	Local	85	69	Slurry	1145	25	28625	\$8,162.48
BAYLOR	68 TH AV	66 TH AV	Local	85	69	Slurry	529	25	13225	\$3,771.14
BEVELAND	CUL-DE-SA	CUL-DE-SA	Local	90	74	Slurry	1030	25	25750	\$7,342.67
BEVELAND	CUL-DE-SA	72 ND AV	Local	85	69	Slurry	739	25	18475	\$5,268.19
BEVELAND	72 ND AV	70 TH AV	Local	88	72	Slurry	700	25	17500	\$4,990.16
BIRDSVIEW	130 TH AV	129 TH AV	Local	90	74	Slurry	205	25	5125	\$1,461.40
BLUESTEM	END	TALLWOOD DR	Local	90	74	Slurry	120	25	3000	\$855.46
BOXWOOD	COTTONWOOD LN	CUL-DE-SA	Local	86	70	Slurry	360	25	9000	\$2,566.37
BRENTWOOD	CUL-DE-SA	BRENTWOOD PL	Local	85	69	Slurry	400	25	10000	\$2,851.52
BRENTWOOD	CUL-DE-SA	ALDERBROO DR	Local	87	71	Slurry	845	25	21125	\$6,023.84
BRIDGEVIEW	SHOREVIEW PL	CUL-DE-SA	Local	85	69	Slurry	215	25	5375	\$1,532.69
BRITTANY	135 TH AV	WINTERLAK DR	Local	90	74	Slurry	1122	25	28050	\$7,998.52
BROADMOOR	WHITEHALL LN	CUL-DE-SA	Local	87	71	Slurry	420	25	10500	\$2,994.10
BROOKSIDE	WALNUT ST	JOHNSON ST	Local	94	78	Slurry	975	25	24375	\$6,950.58
BROOKSIDE	BROOKSIDE PL	JOHNSON AV	Local	83	67	Slurry	460	25	11500	\$3,279.25
BURLCREST	SUMMERCRE DR	115 TH AV	Local	85	69	Slurry	1505	25	37625	\$10,728.85
BURLHEIGHTS	121 ST AV	BURLCREST DR	Local	85	69	Slurry	680	25	17000	\$4,847.59
CARDINAL	72 ND AV	SEQUOIA P	Local	85	69	Slurry	470	25	11750	\$3,350.54
CAROLE	CUL-DE-SA	81 ST AV	Local	85	69	Slurry	330	25	8250	\$2,352.51
CENTER	LINCOLN AV	GREENBURG RD	Local	83	67	Slurry	1475	25	36875	\$10,514.97
CENTURY OAK	CENTURY O DR	CENTURY O DR	Local	83	67	Slurry	540	25	13500	\$3,849.55
CENTURY OAK	CUL-DE-SA	CENTURY O CR	Local	81	65	Slurry	2465	25	61625	\$17,572.50
CENTURY OAK	CENTURY O CR	SUMMERFIE DR	Local	85	69	Slurry	581	25	14525	\$4,141.84
CHATEAU	CUL-DE-SA	108 TH AV	Local	90	74	Slurry	570	25	14250	\$4,063.42
CHEHALEM	CUL-DE-SA	CUL-DE-SA	Local	90	74	Slurry	550	25	13750	\$3,920.84
CHERRY	74 TH AV	VARNS ST	Local	93	77	Slurry	1745	25	43625	\$12,439.76
CHURCHILL	80 TH AV	79 TH AV	Local	91	75	Slurry	415	25	10375	\$2,958.45
CLINTON	72 ND AV	END	Local	91	75	Slurry	634	25	15850	\$4,519.66
CLINTON	68 TH PW	67 TH AV	Local	81	65	Slurry	270	25	6750	\$1,924.78
CLOUD	MCFARLAND BL	CUL-DE-SA	Local	90	74	Slurry	505	25	12625	\$3,600.05
CLYDESDALE	CUL-DE-SA	106 TH AV	Local	85	69	Slurry	158	25	3950	\$1,126.35
CLYDESDALE/105TH	CLYDESDAL PL	CUL-DE-SA	Local	82	66	Slurry	106	25	2650	\$755.65
CLYDESDALE	106 TH AV	CUL-DE-SA	Local	87	71	Slurry	361	25	9025	\$2,573.50
COOK	SERENA WY	CUL-DE-SA	Local	90	74	Slurry	190	25	4750	\$1,354.47
CORAL	GREENBURG RD	GREENBURG RD	Local	85	69	Slurry	215	25	5375	\$1,532.69
CORNELL	TIGARD ST	CUL-DE-SA	Local	85	69	Slurry	375	25	9375	\$2,673.30
COWLES	CUL-DE-SA	ASH AV	Local	83	67	Slurry	225	25	5625	\$1,603.98
CRANE	END	TALLWOOD DR	Local	90	74	Slurry	100	25	2500	\$712.88
CRESMER	ASH AV	GARRETT ST	Local	82	66	Slurry	1225	25	30625	\$8,732.79
DANBUSH	CUL-DE-SA	WINTERLAK DR	Local	85	69	Slurry	260	25	6500	\$1,853.49
								Sub Total	\$605,991.15	
Engineering & Admin=10%, Thin Overlay=\$0.855/s.f. Slurry Cost=\$0.285/s.f.								Total	\$60,599.11	
									\$666,590	
Accumulated Reserve Total									\$403,780.23	

Road Name	Limits From	To	Classification	1999 PCI	2016 PCI	FY 2016-2017 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
DARREL	CUL-DE-SA	96 TH AV	Local	85	68	Slurry	300	25	7500	\$2,202.80
DUCHILLY	CUL-DE-SA	HAZELHILL DR	Local	83	66	Slurry	565	25	14125	\$4,148.61
EDGEWATER	CUL-DE-SA	SUMMERCRE DR	Local	90	73	Slurry	300	25	7500	\$2,202.80
ELEMAR	CUL-DE-SA	ASPIRE RI DR	Local	85	68	Slurry	575	25	14375	\$4,222.03
ELROSE	93 RD AV	CUL-DE-SA	Local	88	71	Slurry	380	25	9500	\$2,790.21
ESSEX	BOXELDER ST	LAUREN LN	Local	90	73	Slurry	1230	25	30750	\$9,031.48
FAIRHAVEN/112TH	FAIRHAVEN ST	FAIRHAVEN ST	Local	82	66	Slurry	160	25	4000	\$1,140.61
FAIRHAVEN	FAIRHAVEN WY	WATKINS AV	Local	91	74	Slurry	345	25	8625	\$2,533.22
FAIRVIEW	115 TH AV	FAIRVIEW CT	Local	90	73	Slurry	405	25	10125	\$2,973.78
FANNO CREEK	BONITA RD	80 TH CT	Local	95	78	Slurry	1155	25	28875	\$8,480.78
FANNO CREEK	FANNO CRE PL	FANNO CRE CT	Local	87	70	Slurry	660	25	16500	\$4,846.16
FANNO CREEK	COLONY CR CT	HALL BL	Local	90	73	Slurry	1000	25	25000	\$7,342.67
FANNO CREEK	FANNO CRE DR	CUL-DE-SA	Local	85	68	Slurry	320	25	8000	\$2,349.65
FEIRING	SWENDON LP	135 TH AV	Local	87	70	Slurry	545	25	13625	\$4,001.75
FIR	CHERRY DR	76 TH AV	Local	91	74	Slurry	295	25	7375	\$2,166.09
FIR	END	74 TH AV	Local	90	73	Slurry	65	25	1625	\$477.27
GALLO	TIGARD ST	TIGARD ST	Local	85	68	Slurry	634	25	15850	\$4,655.25
GARDEN PARK	110 TH AV	110 TH AV	Local	85	68	Slurry	205	25	5125	\$1,505.25
GARDEN	HALL BL	CUL-DE-SA	Local	90	73	Slurry	1025	25	25625	\$7,526.24
GARRETT	BEREA DR	CUL-DE-SA	Local	83	66	Slurry	211	25	5275	\$1,549.30
GENTLEWOODS	CUL-DE-SA	GENTLEWOOD DR	Local	85	68	Slurry	255	25	6375	\$1,872.38
GLACIER LILY	SUMMER LA DR	SUMMER LA DR	Local	90	73	Slurry	1755	25	43875	\$12,886.38
GLENWOOD	CUL-DE-SA	HAZELWOOD LP	Local	87	70	Slurry	264	25	6600	\$1,938.46
GONZAGA	72 ND AV	70 TH AV	Local	93	76	Slurry	690	25	17250	\$5,066.44
GREENLAND	RIVERWOOD LN	SERENA WY	Local	87	70	Slurry	775	25	19375	\$5,690.57
GREENFIELD	END	RIDGEFIEL LN	Local	85	68	Slurry	610	25	15250	\$4,479.03
GREENSWARD	86 TH AV	HALL BL	Local	90	73	Slurry	175	25	4375	\$1,284.97

GREENS	SUMMERFIE DR	SUMMERFIE DR	Local	85	68 Slurry	1588	25	39700	\$11,660.16
GREENS	GREENLEAF TR	HIGHLAND DR	Local	83	66 Slurry	355	25	8875	\$2,606.65
GRIMSON	CUL-DE-SA	SERENA WY	Local	85	68 Slurry	310	25	7750	\$2,276.23
HAMLET	HAMLET ST	CUL-DE-SA	Local	90	73 Slurry	340	25	8500	\$2,496.51
HANKS BEARD/129TH	HANKS BEA ST	CUL-DE-SA	Local	90	73 Slurry	200	25	5000	\$1,468.53
HANKS BEARD	135 TH AV	131 ST AV	Local	90	73 Slurry	845	25	21125	\$6,204.55
HANKS BEARD	130 TH AV	SUMMER LA DR	Local	90	73 Slurry	443	25	11075	\$3,252.80
HAZELHILL	HAZELTREE TR	DUCHILLY CT	Local	100	83 Slurry	686	25	17150	\$5,037.07
HAZELWOOD	SPRINGWOOD DR	SPRINGWOOD DR	Local	87	70 Slurry	1426	25	35650	\$10,470.65
HAZELTREE	BULL MOUN RD	HAZELHILL DR	Local	83	66 Slurry	560	25	14000	\$4,111.89
HERMOSO	BRVELAND RD	72 ND AV	Local	90	73 Slurry	1100	25	27500	\$9,076.93
HIGH TOR	CITY LIMI	BENCHVIEW TR	Local	90	73 Slurry	280	25	7000	\$2,055.95
HIGHLAND	CUL-DE-SA	SUMMERFIE DR	Local	80	63 Slurry	740	25	18500	\$5,433.57
HIGHLAND	SUMMERFIE DR	100 TH AV	Local	93	76 Slurry	3760	25	94000	\$27,608.43
HILL	OMARA ST	ASH AV	Local	95	78 Slurry	1645	25	41125	\$12,078.69
HILL/92ND	CUL-DE-SA	HILL ST	Local	85	68 Slurry	185	25	4625	\$1,358.39
HILLVIEW	OMARA ST	CUL-DE-SA	Local	88	71 Slurry	375	25	9375	\$2,753.50
HOODVIEW	END	KABLE CT	Local	90	73 Slurry	1290	25	32000	\$9,398.62
HORIZON	CITY LIMI	ASCENSION DR	Local	90	73 Slurry	520	25	13000	\$3,818.19
INEZ	103 RD AV	100 TH AV	Local	90	73 Slurry	790	25	19750	\$5,800.71
INEZ	CUL-DE-SA	87 TH CT	Local	95	78 Slurry	1660	25	41500	\$12,188.83
JAMES	HOWARD DR	END	Local	77	60 Slurry	460	25	11500	\$3,377.63
JAMES	124 TH AV	121 ST AV	Local	88	71 Slurry	1250	25	31250	\$9,178.34
JOHNSON	JOHNSON ST	CUL-DE-SA	Local	90	73 Slurry	211	25	5275	\$1,549.30
JOHNSON	END	JOHNSON CT	Local	85	68 Slurry	260	25	6500	\$1,909.09
JOHNSON	JOHNSON CT	GRANT AV	Local	85	68 Slurry	1155	25	28875	\$8,480.78
KAREN	127 TH AV	125 TH AV	Local	90	73 Slurry	560	25	14000	\$4,111.89
KATHERINE	128 TH AV	CUL-DE-SA	Local	90	73 Slurry	815	25	20375	\$5,984.27
KATHERINE	125 TH AV	116 TH AV	Local	97	80 Slurry	2535	25	63375	\$18,613.66
KATHERINE	KAROL CT	TIGARD ST	Local	85	68 Slurry	253	25	6325	\$1,857.70
KENT	GREENLAND DR	CUL-DE-SA	Local	85	68 Slurry	375	25	9375	\$2,753.50
KENT	108 TH AV	103 RD AV	Local	93	76 Slurry	1250	25	31250	\$9,178.34
KERI	104 TH AV	CUL-DE-SA	Local	90	73 Slurry	525	25	12875	\$3,683.92
KIMBERLY	SERENA CT	98 TH AV	Local	87	70 Slurry	715	25	17875	\$5,250.01
KROESE	80 TH PL	END	Local	86	69 Slurry	150	25	3750	\$1,101.40
LAKEVIEW	WINTERLAK DR	SHOREVIEW PL	Local	85	68 Slurry	335	25	8375	\$2,459.79
LANDMARK	CUL-DE-SA	72 ND AV	Local	83	66 Slurry	750	25	18750	\$5,507.00
LAUREN	ESSEX DR	135 TH AV	Local	90	73 Slurry	755	25	18875	\$5,543.71
LAURMOUNT	CUL-DE-SA	SHORE DR	Local	90	73 Slurry	405	25	10125	\$2,973.78
LEWIS	CUL-DE-SA	95 TH AV	Local	81	64 Slurry	420	25	10500	\$3,083.92
LOCUST	72 ND AV	END	Local	90	73 Slurry	615	25	15375	\$4,515.74
LOLA	SHADY PL	CUL-DE-SA	Local	92	75 Slurry	620	25	15500	\$4,552.45
LYNN	121 ST AV	116 TH AV	Local	85	68 Slurry	982	25	24550	\$7,210.50
MARILYN	CUL-DE-SA	96 TH AV	Local	83	66 Slurry	270	25	6750	\$1,982.52
MARION	124 TH AV	121 ST AV	Local	87	70 Slurry	1270	25	31750	\$9,325.19
MARTHA	COPPER CR DR	COPPER CR DR	Local	85	68 Slurry	175	25	4375	\$1,284.97
MARTHA	93 RD AV	92 ND AV	Local	83	66 Slurry	410	25	10250	\$2,910.49
MATTHEW PARK	END	81 ST AV	Local	90	73 Slurry	350	25	8750	\$2,569.93
MC FARLAND	VISTA VIE CT	CLOUD CT	Local	100	83 Slurry	935	25	23375	\$6,865.40
MC FARLAND	CLOUD CT	BULL MOUN RD	Local	88	71 Slurry	771	25	19275	\$5,661.20
MCKENZIE	GRANT AV	PACIFIC HW	Local	85	68 Slurry	715	25	17875	\$5,250.01
MEADOWWOOD	WOODCREST AV	WOODCREST AV	Local	90	73 Slurry	595	25	14875	\$4,368.89
MILLLEN	MILLEN/94 CT	93 RD AV	Local	83	66 Slurry	315	25	7875	\$2,312.94
MILLVIEW	SUMMERCRE DR	CUL-DE-SA	Local	86	69 Slurry	870	25	21875	\$6,324.87
MIRA	110 TH AV	CUL-DE-SA	Local	90	73 Slurry	515	25	12875	\$3,781.47
MORNING HILL	WESTBURY TR	135 TH AV	Local	85	68 Slurry	620	25	15500	\$4,552.45
MOUNTAIN RIDGE	134 TH AV	CUL-DE-SA	Local	87	70 Slurry	495	25	12375	\$3,634.62
MOUNTAIN VIEW	END	END	Local	100	83 Slurry	1020	25	25500	\$7,489.52
MURDOCK	109 TH AV	106 TH AV	Local	85	68 Slurry	710	25	17750	\$5,213.29
MURDOCK	97 TH AV	END	Local	90	73 Slurry	465	25	11625	\$3,414.34
OAK	90 TH AV	87 TH AV	Local	85	68 Slurry	1165	25	29125	\$8,554.21
OAK MEADOW/92ND	END	OAK MEADO LN	Local	85	68 Slurry	100	25	2500	\$734.27
OAK MEADOW/91ST	END	OAK MEADO LN	Local	85	68 Slurry	100	25	2500	\$734.27
OAK MEADOW	ALDERBROO DR	ALDERBROO CR	Local	90	73 Slurry	1150	25	28750	\$8,444.07
OAKHILL	ALDERBROO DR	CUL-DE-SA	Local	90	73 Slurry	915	25	22875	\$6,718.54
OAKS	98 TH AV	END	Local	95	78 Slurry	330	25	8250	\$2,423.08
PEMBROOK	100 TH AV	97 TH AV	Local	88	71 Slurry	960	25	24000	\$7,048.96
PENN	CUL-DE-SA	115 TH AV	Local	85	68 Slurry	425	25	10625	\$3,120.63
PINEBROOK	CUL-DE-SA	89 TH AV	Local	80	63 Slurry	310	25	7750	\$2,276.23
REDWOOD	72 ND AV	CUL-DE-SA	Local	95	78 Slurry	865	25	21625	\$6,351.41
REILING	92 ND AV	88 TH AV	Local	93	76 Slurry	1255	25	31375	\$9,215.05
SANDBURG	72 ND AV	72 ND AV	Local	90	73 Slurry	630	25	15750	\$4,625.88
SHECKLA	REILING ST	89 TH CT	Local	90	73 Slurry	480	25	12000	\$3,524.48
SCHOLLWOOD	CUL-DE-SA	HAZELWOOD LP	Local	87	70 Slurry	317	25	7925	\$2,327.63
SERENA	GRIMSON CT	WOODCREST AV	Local	83	66 Slurry	690	25	17250	\$5,066.44
SHADY	SHADY LN	SHADY LN	Local	91	74 Slurry	1155	25	28875	\$8,480.78
SHADY	74 TH AV	SHADY LN	Local	90	73 Slurry	370	25	9250	\$2,716.79
SHADY	SHADY CT	CUL-DE-SA	Local	77	60 Slurry	210	25	5250	\$1,541.96
SHEFFIELD	BRITTANY DR	BRITTANY DR	Local	90	73 Slurry	1040	25	26000	\$7,636.38
SHORE	MORNING H DR	WINTERLAK DR	Local	90	73 Slurry	1325	25	33125	\$9,729.04
SHOREVIEW	LAKEVIEW TE	CUL-DE-SA	Local	85	68 Slurry	620	25	15500	\$4,552.45
SNOW BRUSH	CUL-DE-SA	SUMMER LA DR	Local	92	75 Slurry	530	25	13250	\$3,891.61
SPRINGWOOD	CUL-DE-SA	121 ST AV	Local	85	68 Slurry	275	25	6875	\$2,019.23
SPRUCE	74 TH AV	71 ST AV	Local	84	67 Slurry	970	25	24250	\$7,122.39
STARDUST	NORTHVIEW DR	LIDEN DR	Local	90	73 Slurry	280	25	7000	\$2,055.95
STARVIEW	END	130 TH AV	Local	90	73 Slurry	1733	25	43325	\$12,724.84
STEVE	83 RD AV	83 RD AV	Local	91	74 Slurry	255	25	6375	\$1,872.38
STRATFORD	87 TH AV	CUL-DE-SA	Local	86	69 Slurry	430	25	10750	\$3,157.35
STRATFORD	88 TH AV	88 TH AV	Local	90	73 Slurry	1020	25	25500	\$7,489.52
SUMMERCREST	121 ST AV	TIGARD DR	Local	85	68 Slurry	555	25	13875	\$4,075.18
SUMMER LAKE	SNOW BRUS CT	SCHOLLS F RD	Local	90	73 Slurry	1780	25	44500	\$13,069.95
SUMMER	SUMMERCRE DR	121 ST AV	Local	85	68 Slurry	890	25	22250	\$6,534.98
SWENDON	ASHBURY LN	ASHBURY LN	Local	90	73 Slurry	1392	25	34800	\$10,220.99
TALLWOOD	BLUESTEM LN	ASHBURY LN	Local	100	83 Slurry	1225	25	30625	\$8,994.77
TANGELA	END	92 ND AV	Local	90	73 Slurry	120	25	3000	\$881.12

Engineering & Admin=10%,
Slurry Cost=\$0.293/s.f.

Sub Total \$627,548.51
Total \$690,303

Accumulated Reserve Total \$513,476.87

Road Name	Limits From	To	Classification	1999 PCI	2017 PCI	FY 2017-2018 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
TIGARD	TIEDERMAN AV	PACIFIC HW	Local	100	82	Reconstruction	310	30	95730	\$685,839.76
TIGARD	PACIFIC HW	MAIN ST	Local	91	73	Reconstruction	158	30	4740	\$33,958.85
TIMOTHY	CUL-DE-SA	115 TH AV	Local	83	69	Slurry	264	25	6600	\$1,996.62
TIPPITT	END	121 ST AV	Local	91	73	Slurry	600	25	15000	\$4,537.77
TITAN	108 TH AV	104 TH AV	Local	93	75	Slurry	1045	25	26125	\$7,903.28
TWIN PARK	TIGARD ST	CUL-DE-SA	Local	85	67	Slurry	360	25	9000	\$2,722.66
VENUS	GENESIS LP	CUL-DE-SA	Local	87	69	Slurry	470	25	11750	\$3,554.59
VIEW	VIEW TR	CUL-DE-SA	Local	90	72	Slurry	190	25	4750	\$1,436.96
VIEW	CUL-DE-SA	CUL-DE-SA	Local	88	70	Slurry	940	25	23500	\$7,109.17
VIEW	100 TH AV	94 TH CT	Local	100	82	Slurry	1110	25	27750	\$8,394.87
VIEW	93 RD AV	92 ND AV	Local	87	69	Slurry	525	25	13125	\$3,970.55
VIEWCREST	CUL-DE-SA	ASPINE RI DR	Local	85	67	Slurry	545	25	13625	\$4,121.81
VIEWMOUNT	114 TH AV	CUL-DE-SA	Local	91	73	Slurry	605	25	15125	\$4,575.58
VILLAGE GLENN	FREWING ST	ASH AV	Local	93	75	Slurry	1290	25	32250	\$9,756.20
VILLAGE PARK	129 TH PL	128 TH AV	Local	90	72	Slurry	360	25	9000	\$2,722.66
VISTA VIEW	MCFARLAND BL	CUL-DE-SA	Local	85	67	Slurry	270	25	6750	\$2,042.00
WESTRIDGE	ESSEX DR	135 TH AV	Local	90	72	Slurry	870	25	21750	\$6,579.77
WILDWOOD/118TH	WILDWOOD ST	CUL-DE-SA	Local	85	67	Slurry	158	25	3950	\$1,194.95
WILDWOOD	WILDWOOD ST	CUL-DE-SA	Local	90	72	Slurry	260	25	6500	\$1,966.37
WILDWOOD	VISTA VIE CT	MCFARLAND BL	Local	93	75	Slurry	1485	25	37125	\$11,230.98
WILLOWWOOD	COTTONWOOD LN	CUL-DE-SA	Local	86	68	Slurry	470	25	11750	\$3,554.59
WILLIS	CUL-DE-SA	127 TH AV	Local	80	62	Slurry	370	25	9250	\$2,798.29
WILTON	LIDEN DR	WALNUT ST	Local	90	72	Slurry	150	25	3750	\$1,134.44
WINDSOR	106 TH AV	CUL-DE-SA	Local	87	69	Slurry	340	25	8500	\$2,571.40
WINDSONG	WALNUT LN	NORTHVIEW DR	Local	85	67	Slurry	1070	25	26750	\$8,092.36
WINDSOR	106 TH AV	CUL-DE-SA	Local	90	72	Slurry	440	25	11000	\$3,327.70
WOODLAWN	CUL-DE-SA	115 TH AV	Local	85	67	Slurry	415	25	10375	\$3,138.62
103 RD	MURDOCK ST	MCDONALD ST	Local	95	77	Slurry	2020	25	50500	\$15,277.16
104 TH	KENT ST	KNUCKLE ST	Local	90	72	Slurry	1115	25	27875	\$8,432.68
104 TH	PICKS WY	DURHAM RD	Local	85	67	Slurry	430	25	10750	\$3,232.69
100 TH	END	KABLE ST	Local	85	67	Slurry	225	25	5625	\$1,701.66
104 TH	MCDONALD ST	HILLVIEW ST	Local	92	74	Slurry	400	25	10000	\$3,025.18
106 TH	DEL MONTE DR	CANTERBUR LN	Local	95	77	Slurry	955	25	23875	\$7,222.62
106 TH	WINDSOR CT	CUL-DE-SA	Local	90	72	Slurry	305	25	7625	\$2,306.70
106 TH	CITY LIMIT	CLYDESDAL PL	Local	85	67	Slurry	150	25	3750	\$1,134.44
106 TH	CLYDESDAL PL	CLYDESDAL CT	Local	85	67	Slurry	365	25	9125	\$2,798.29
106 TH	CLYDESDAL CT	TIEDERMAN AV	Local	85	67	Slurry	165	25	4125	\$1,247.89
107 TH	CUL-DE-SA	PONNER ST	Local	84	66	Slurry	1260	25	31500	\$9,529.32
109 TH	HIGHLAND DR	NAEVE ST	Local	85	67	Slurry	395	25	9875	\$2,987.36
109 TH	NAEVE ST	END	Local	84	66	Slurry	662	25	16550	\$5,006.67
109 TH	NORTH DAK ST	BLACK DIA WY	Local	100	82	Slurry	1055	25	26375	\$7,978.91
109 TH	CUL-DE-SA	CHATEAU LN	Local	85	67	Slurry	140	25	3500	\$1,058.81
111 TH	FOUNDER ST	CUL-DE-SA	Local	85	67	Slurry	610	25	15250	\$4,613.40
112 TH	PACIFIC HW	GAARD ST	Local	87	69	Slurry	1485	25	37125	\$11,230.98
113 TH	CITY LIMIT	DURHAM RD	Local	81	63	Slurry	660	25	16500	\$4,991.55
113 TH	CUL-DE-SA	DAWNS CT	Local	82	64	Slurry	390	25	9750	\$2,949.55
113 TH	DAWNS CT	TIGARD ST	Local	85	67	Slurry	630	25	15750	\$4,764.66
114 TH	VIEWMOUNT LN	FAIRHAVEN ST	Local	92	74	Slurry	980	25	24500	\$7,411.69
114 TH	SUMMERFIE DR	CUL-DE-SA	Local	85	67	Slurry	340	25	8500	\$2,571.40
114 TH	115 TH AV	WALNUT ST	Local	85	67	Slurry	890	25	22250	\$6,731.02
116 TH	WALNUT ST	ANN ST	Local	83	65	Slurry	380	25	9500	\$2,873.92
118 TH	LYNN ST	KATHERINE ST	Local	85	67	Slurry	650	25	16250	\$4,915.92
119 TH	NORTH DAK ST	MANZANITA ST	Local	90	72	Slurry	678	25	16950	\$5,127.68
122 ND	WALNUT ST	END	Local	90	72	Slurry	350	25	8750	\$2,647.03
124 TH	MARION ST	END	Local	93	75	Slurry	685	25	17125	\$5,180.62
124 TH	WALNUT ST	BROOK CT	Local	91	73	Slurry	1060	25	26500	\$8,016.73
124 TH	NORTH DAK ST	CUL-DE-SA	Local	90	72	Slurry	270	25	6750	\$2,042.00
125 TH	KAREN ST	KATHERINE ST	Local	90	72	Slurry	600	25	15000	\$4,537.77
125 TH	CUL-DE-SA	WINTERLAK DR	Local	85	67	Slurry	705	25	17625	\$5,331.88
129 TH	BULL MOUN RD	BIRDSVIEW ST	Local	85	67	Slurry	380	25	9500	\$2,873.92
129 TH	CUL-DE-SA	FALCON RI CT	Local	90	72	Slurry	240	25	6000	\$1,815.11
129TH	CUL-DE-SA	WINTERLAK CT	Local	90	72	Slurry	695	25	17375	\$5,256.25
129TH	CUL-DE-SA	WINTERLAK CT	Local	90	72	Slurry	695	25	17375	\$5,256.25
133 RD	END	132 ND AV	Local	90	72	Slurry	600	25	15000	\$4,537.77
133 RD	132 ND AV	BENISH ST	Local	85	67	Slurry	1150	25	28750	\$8,697.50
133 RD	SHEFFIELD CR	END	Local	90	72	Slurry	115	25	2875	\$869.74
133 RD	CUL-DE-SA	BRITTANY DR	Local	90	72	Slurry	250	25	6250	\$1,890.74
134 TH	133 RD AV	BENISH ST	Local	85	67	Slurry	640	25	16000	\$4,840.29
134 TH	133 RD AV	MOUNTAIN CT	Local	90	72	Slurry	1405	25	35125	\$10,625.94
134 TH	SHEFFIELD CR	CUL-DE-SA	Local	90	72	Slurry	180	25	4500	\$1,361.33
136 TH	CUL-DE-SA	WESTRIDGE TE	Local	90	72	Slurry	635	25	15875	\$4,802.47
66 TH	CUL-DE-SA	OAK ST	Local	100	82	Slurry	170	25	4375	\$1,323.85
69 TH	CLINTON ST	ATLANTA ST	Local	97	79	Slurry	865	25	21625	\$6,541.95
69 TH	PINE ST	OAK ST	Local	100	82	Slurry	560	25	14000	\$4,235.25
69 TH	CUL-DE-SA	TAYLORS F RD	Local	100	82	Slurry	1700	25	42500	\$12,857.01
70 TH	OAK ST	END	Local	100	82	Slurry	515	25	12875	\$3,894.92
70 TH	69 TH AV	TAYLORS F RD	Local	100	82	Slurry	1420	25	35500	\$10,739.39
76 TH	DURHAM RD	BOND ST	Local	100	82	Slurry	690	25	17250	\$5,218.43
76 TH	END	ASHFORD ST	Local	100	82	Slurry	440	25	11000	\$3,327.70
76 TH	END	END	Local	93	75	Slurry	280	25	7000	\$2,117.63
76 TH	SPRUCE ST	SPRUCE ST	Local	95	77	Slurry	106	25	2650	\$801.67
Sub Total										\$1,092,977.18
Engineering & Admin=10%, Slurry Cost=\$0.3025/s.f., Reconstruction=\$7.164/s.f.										\$109,297.72
Total										\$1,202,275
Accumulated Reserve Total										\$111,201.97

Road Name		Limits From	To	Classification	1999 PCI	2018 PCI	FY 2018-2019 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
79 TH	PFAPFLE ST		THORN ST	Local	100	81	Slurry	1245	25	31125	\$9,698.35
80 TH	BOND ST		CHURCHILL WY	Local	100	81	Slurry	290	25	7250	\$2,259.05
80 TH		END	END	Local	100	81	Slurry	440	25	11000	\$3,427.53
80 TH	FANNO CRE DR		CUL-DE-SA	Local	93	74	Slurry	510	25	12750	\$3,972.82
80 TH	CUL-DE-SA		FANNO CRE DR	Local	95	76	Slurry	775	25	19375	\$6,037.12
81 ST	ASHFORD ST		ROSS ST	Local	100	81	Slurry	1005	25	25125	\$7,828.79
81 ST	ROSS ST		BONITA RD	Local	100	81	Slurry	1880	25	47000	\$14,644.89
81 ST	CUL-DE-SA		BOND ST	Local	95	76	Slurry	295	25	7375	\$2,298.00
82 ND	PATTIE LN		LANGTREE ST	Local	100	81	Slurry	555	25	13875	\$4,323.36
82 ND	PFAPFLE ST		END	Local	100	81	Slurry	810	25	20250	\$6,309.77
82 ND	STEVE ST		CUL-DE-SA	Local	100	81	Slurry	317	25	7925	\$2,469.38
82 ND	ASHFORD ST		END	Local	97	78	Slurry	600	25	15000	\$4,673.90
83 RD	END		LANAMCHA CT	Local	93	74	Slurry	125	25	3125	\$973.73
83 RD	LANAMCHA CT		LANAMCHA CT	Local	93	74	Slurry	250	25	6250	\$1,947.46
83 RD	MURDOCK ST		CUL-DE-SA	Local	93	74	Slurry	415	25	10375	\$3,232.78
83 RD	CUL-DE-SA		BONITA RD	Local	100	81	Slurry	580	25	14500	\$4,518.11
84 TH	LANGTREE ST		ASHFORD ST	Local	100	81	Slurry	245	25	6125	\$1,908.51
84 TH	KENTON DR		END	Local	100	81	Slurry	150	25	3750	\$1,168.48
84 TH	MURDOCK ST		CUL-DE-SA	Local	95	76	Slurry	410	25	10250	\$3,193.83
84 TH	BONAVENTU LN		CUL-DE-SA	Local	100	81	Slurry	190	25	4750	\$1,480.07
85 TH	CITY LIMIT		CITY LIMIT	Local	95	76	Slurry	605	25	15125	\$4,712.85
87 TH	DURHAM RD		HAMLET ST	Local	95	76	Slurry	920	25	23000	\$7,166.65
87 TH	END		BELLFLOWE LN	Local	100	81	Slurry	76	25	1900	\$592.03
87 TH	OAK ST		LOCUST ST	Local	100	81	Slurry	780	25	19500	\$6,076.07
88 TH	DURHAM RD		SATTTLER ST	Local	100	81	Slurry	1802	25	45050	\$14,037.29
88 TH	END		END	Local	100	81	Slurry	355	25	8875	\$2,765.39
90 TH	END		END	Local	100	81	Slurry	335	25	8375	\$2,609.60
90 TH	OAK ST		LOCUST ST	Local	100	81	Slurry	1190	25	29750	\$9,269.91
91 ST	LINCOLN AV		GREENBURG RD	Local	100	81	Slurry	760	25	19000	\$5,920.28
92 ND	SATTTLER ST		INEZ ST	Local	100	81	Slurry	1815	25	45375	\$14,138.55
92 ND	INEZ ST		VIEW TR	Local	93	74	Slurry	225	25	5625	\$1,752.71
92 ND	MAPLELEAF ST		LOCUST ST	Local	100	81	Slurry	370	25	9250	\$2,882.24
93 RD	MARTHA ST		CUL-DE-SA	Local	95	76	Slurry	264	25	6600	\$2,056.52
94 TH	LAKESIDE DR		END	Local	100	81	Slurry	270	25	6750	\$2,103.26
94 TH	GREENBURG RD		GREENBURG RD	Local	93	74	Slurry	480	25	12000	\$3,739.12
95 TH	COMMERCIA ST		GREENBURG RD	Local	100			1535	25	38375	\$11,987.40
95 TH	LAKESIDE DR		CUL-DE-SA	Local	95	76	Slurry	100	25	2500	\$778.98
97 TH	OAKS LN		CUL-DE-SA	Local	95	76	Slurry	120	25	3000	\$934.78
97 TH	CUL-DE-SA		ELROSE ST	Local	100	81	Slurry	316	25	7900	\$2,461.59

ALFRED	69 TH AV	VENTURA CT	Local	100	81 Slurry	850	25	21250	\$6,621.36
AMES	CHANDLER DR	121 ST AV	Local	97	78 Slurry	680	25	17000	\$5,297.09
ASH	HILL ST	END	Local	95	76 Slurry	53	25	1325	\$412.86
ASH	COMMERCIA ST	COMMERCIA ST	Local	100	81 Slurry	165	25	4125	\$1,285.32
ASHBURY	TALLWOOD DR	WILTON AV	Local	100	81 Slurry	520	25	13000	\$4,050.72
ASHFORD	84 TH AV	81 ST AV	Local	95	76 Slurry	550	25	13750	\$4,284.41
ASHFORD	THURSTON DR	79 TH AV	Local	95	76 Slurry	210	25	5250	\$1,635.87
AVON	87 TH AV	HALL BL	Local	94	75 Slurry	620	25	15500	\$4,829.70
BAMBI	116 TH AV	115 TH AV	Local	97	78 Slurry	210	25	5250	\$1,635.87
BARBARA	74 TH AV	VENTURA CT	Local	100	81 Slurry	1215	25	30375	\$9,464.65
BELL	127 TH AV	CUL-DE-SA	Local	100	81 Slurry	565	25	14125	\$4,401.26
BELLFLOWER	END	REILING ST	Local	100	81 Slurry	1191	25	29775	\$9,277.70
BENCHVIEW	CUL-DE-SA	BENCHVIEW TR	Local	100	81 Slurry	264	25	6600	\$2,056.52
BLACK DIAMOND	111 TH AV	PONDEROSA PL	Local	100	81 Slurry	795	25	19875	\$6,192.92
BLACK DIAMOND	PONDEROSA PL	106 TH AV	Local	100	81 Slurry	670	25	16750	\$5,219.19
BONANZA	RIVERWOOD LN	RIVERWOOD LN	Local	100	81 Slurry	700	25	17500	\$5,452.89
BONAVENTURE	END	82 ND AV	Local	100	81 Slurry	630	25	15750	\$4,907.60
BOND	81 ST CT	79 TH AV	Local	95	76 Slurry	860	25	21500	\$6,699.26
BOND	79 TH AV	76 TH AV	Local	100	81 Slurry	665	25	16625	\$5,180.24
BOUNEFF	MORNING H DR	131 ST AV	Local	97	78 Slurry	485	25	12125	\$3,778.07
BRAEBURN	END	REILING ST	Local	100	81 Slurry	725	25	18125	\$5,647.63
COLONY	COLONY DR	CUL-DE-SA	Local	100	81 Slurry	290	25	7250	\$2,259.05
BURNHAM	CUL-DE-SA	HILL ST	Local	95	76 Slurry	220	25	5500	\$1,713.76
CARMEN	CITY LIMI	116 TH AV	Local	95	76 Slurry	115	25	2875	\$895.83
CENTER	95 TH AV	95 TH AV	Local	100	81 Slurry	280	25	7000	\$2,181.12
CHANDLER	AMES RD	121 ST AV	Local	97	78 Slurry	950	25	23750	\$7,400.35
CHELSEA	OMARA ST	OMARA ST	Local	94	75 Slurry	1200	25	30000	\$9,347.80
CHERRY	72 ND AV	74 TH AV	Local	95	76 Slurry	340	25	8500	\$2,648.54
CHICKORY	CUL-DE-SA	SUMMER LA CT	Local	94	75 Slurry	335	25	8375	\$2,609.60
CHURCHILL	80 TH AV	CUL-DE-SA	Local	100	81 Slurry	480	25	12000	\$3,739.12
CLINTON	70 TH AV	69 TH AV	Local	95	76 Slurry	264	25	6600	\$2,056.52
CORAL	GREENBURG RD	GREENBURG RD	Local	100	81 Slurry	450	25	11250	\$3,505.43
CORTLAND	END	NO NAME DR	Local	100	81 Slurry	100	25	2500	\$778.98
DAWN	CUL-DE-SA	92 ND AV	Local	100	81 Slurry	220	25	5500	\$1,713.76
DEL MONTE	106 TH AV	103 RD AV	Local	100	81 Slurry	720	25	18000	\$5,608.68
DERRY DELL	PARK ST	PARK ST	Local	94	75 Slurry	430	25	10750	\$3,349.63
DOVER	CUL-DE-SA	108 TH AV	Local	95	76 Slurry	300	25	7500	\$2,336.95
ELISE	CUL-DE-SA	103 RD AV	Local	100	81 Slurry	230	25	5750	\$1,791.66
ELMHURST	79 TH AV	68 TH PW	Local	97	78 Slurry	275	25	6875	\$2,142.21
ELROSE	98 TH AV	97 TH AV	Local	100	81 Slurry	485	25	12125	\$3,778.07
ERROL	END	116 TH AV	Local	97	78 Slurry	100	25	2500	\$778.98
ERROL	END	FONNER ST	Local	100	81 Slurry	1450	25	36250	\$11,295.26
ESCHMAN	WINTERLAK CT	HAWKS BEA ST	Local	100	81 Slurry	375	25	9375	\$2,921.19
EYEBROW	STRATFORD LP	END	Local	95	76 Slurry	130	25	3250	\$1,012.68
FAIRHAVEN	115 TH AV	CUL-DE-SA	Local	95	76 Slurry	910	25	22750	\$7,088.75
FAIRHAVEN	110 TH AV	FAIRHAVEN ST	Local	93	74 Slurry	1190	25	29750	\$9,269.91
FERN	END	VERSHIRE LN	Local	100	81 Slurry	1260	25	31500	\$9,815.19
FIR	72 ND AV	72 ND AV	Local	100	81 Slurry	235	25	5875	\$1,830.61
FIR	74 TH AV	FIR LP	Local	100	81 Slurry	551	25	13775	\$4,292.20
FRANKLIN	69 TH AV	68 TH AV	Local	100	81 Slurry	230	25	5750	\$1,791.66
FREWING	PACIFIC HW	PACIFIC HW	Local	95	76 Slurry	686	25	17150	\$5,343.83
GARDEN	GARDEN PL	PACIFIC HW	Local	100	81 Slurry	739	25	18475	\$5,756.69
GENESIS	115 TH AV	AMBIANCE PL	Local	100	81 Slurry	610	25	15250	\$4,751.80
GENESIS	CITY LIMI AV	115 TH AV	Local	100	81 Slurry	30	25	750	\$233.70
GENEVA	111 TH AV	109 TH AV	Local	100	81 Slurry	515	25	12875	\$4,011.77
GENTLEWOODS	ASHFORD ST	97 TH AV	Local	93	74 Slurry	740	25	18500	\$5,764.48
GRAVENSTEN	END	NO NAME DR	Local	100	81 Slurry	100	25	2500	\$778.98
GREENSWARD	90 TH AV	86 TH AV	Local	100	81 Slurry	1105	25	27625	\$8,607.77
HAMLET	STRATFORD LP	HALL BL	Local	100	81 Slurry	1470	25	36750	\$11,451.06
HAWKS BEARD	131 ST PL	130 TH AV	Local	97	78 Slurry	490	25	12250	\$3,817.02
HEIDI	CUL-DE-SA	92 ND AV	Local	100	81 Slurry	180	25	4625	\$1,441.12
HILL	CUL-DE-SA	HILL ST	Local	95	76 Slurry	215	25	5375	\$1,674.81
HILLVIEW/103RD	CUL-DE-SA	HILLVIEW ST	Local	93	74 Slurry	160	25	4000	\$1,246.37
HILLVIEW	104 TH AV	ASH AV	Local	95	76 Slurry	992	25	24800	\$7,727.52
INEZ	100 TH AV	END	Local	95	76 Slurry	470	25	11750	\$3,661.22
INEZ	92 ND AV	END	Local	93	74 Slurry	265	25	6625	\$2,064.31
JANZEN	CUL-DE-SA	98 TH CT	Local	100	81 Slurry	230	25	5750	\$1,791.66
JEFFERSON	LOCUST ST	LOCUST ST	Local	100	81 Slurry	200	25	5000	\$1,562.50
JENNA	ESSEX DR	CUL-DE-SA	Local	97	78 Slurry	390	25	9750	\$3,038.04
JOHNSON	106 TH AV	END	Local	100	81 Slurry	365	25	9125	\$2,843.29
KABLE	CUL-DE-SA	72 ND AV	Local	100	81 Slurry	550	25	13750	\$4,284.41
KAROL	CUL-DE-SA	KATHERINE ST	Local	100	81 Slurry	317	25	7925	\$2,469.38
KATHERINE/123RD	KATHERINE ST	KATHERINE ST	Local	100	81 Slurry	106	25	2650	\$825.72
KENT	103 RD AV	CUL-DE-SA	Local	100	81 Slurry	230	25	5750	\$1,791.66
KENTON	END	ASHFORD ST	Local	100	81 Slurry	1660	25	41500	\$12,931.13
LADY MARION	END	100 TH AV	Local	95	76 Slurry	1385	25	34625	\$10,788.92
Sub Total									\$501,260.44
Engineering & Admin=10%, Slurry Cost=\$0.3115/s.f.									\$50,126.04
Total									\$551,386
Accumulated Reserve Total									\$359,815.49

Road Name	Limits From	To	Classification 1999 PCI	2019 PCI	FY 2019-2020 Recommend Action	Prj_length	Width	Area (s.f.)	Cost
TIEDMAN	TIGARD ST	GREENBURG RD	Neigh'd Route	95	75 *Reconstruction	1291	30	38730	\$294,372.03
LAKE	END	VILLAGE G DR	Local	95	75 Slurry	200	25	5000	\$1,604.71
LAKESIDE	98 TH AV	ALDERBROO DR	Local	95	80 Slurry	1105	25	27625	\$8,866.00
LANAMCHA	CUL-DE-SA	83 RD AV	Local	95	75 Slurry	400	25	10000	\$3,309.41
LANDAU	LANDAU ST	CUL-DE-SA	Local	95	75 Slurry	751	25	18750	\$6,017.65
LANGTREE	HALL BL	END	Local	100	80 Slurry	785	25	19625	\$6,298.47
LANSDOWNE	CUL-DE-SA	TIPPITT PL	Local	97	77 Slurry	950	25	23750	\$7,622.36
LEHMAN	GREENBURG RD	GREENBURG RD	Local	100	80 Slurry	375	25	9375	\$3,008.82
LESLIE	CUL-DE-SA	92 ND AV	Local	100	80 Slurry	230	25	5750	\$1,845.41
LIDEN	CHEHALEM CT	WILTON AV	Local	97	77 Slurry	1480	25	37000	\$11,874.83
LINCOLN	COMMERCIA ST	GREENBURG RD	Local	100	80 Slurry	1495	25	37375	\$11,995.18
LINCOLN	MAPLELEAF ST	LOCUST ST	Local	100	80 Slurry	370	25	9250	\$2,968.71
LODI	END	REILING ST	Local	100	80 Slurry	717	25	17925	\$5,752.87
LONDON	98 TH AV	LONDON CT	Local	97	77 Slurry	220	25	5500	\$1,765.18
MAPLELEAF	72 ND AV	71 ST AV	Local	100	80 Slurry	230	25	5750	\$1,845.41
MARCIA	NORTHVIEW DR	139 TH AV	Local	97	77 Slurry	390	25	9750	\$3,129.18
MARIE	128 TH AV	CUL-DE-SA	Local	100	80 Slurry	264	25	6600	\$2,118.21
MAZAMA	NAEVE ST	CUL-DE-SA	Local	100	80 Slurry	215	25	5375	\$1,725.06
MCKENZIE	END	PACIFIC HW	Local	100	80 Slurry	315	25	7875	\$2,527.41
MICHELLE	ESSEX DR	CUL-DE-SA	Local	97	77 Slurry	670	25	16750	\$5,375.77
MILLER	CUL-DE-SA	HAMLET ST	Local	100	80 Slurry	110	25	2750	\$882.59
MORNING HILL	131 ST AV	CUL-DE-SA	Local	97	77 Slurry	235	25	5875	\$1,885.53
MORNING HILL	CUL-DE-SA	WILTON AV	Local	95	75 Slurry	235	25	5875	\$1,885.53
MORNING HILL	FALCON RI DR	SCOTT BRI DR	Local	100	80 Slurry	715	25	17875	\$5,736.83
MORNING HILL	KATHERINE ST	FALCON RI DR	Local	100	80 Slurry	264	25	6600	\$2,118.21
MURDOCK	75 HALL BL	83 RD AV	Local	95	75 Slurry	485	25	12125	\$3,821.40
NAEVE	109 TH AV	END	Local	100	80 Slurry	1155	25	28875	\$9,267.18
NORTHVIEW	WALNUT ST	140 TH TE	Local	100	80 Slurry	2325	25	58125	\$18,654.71
PATHFINDER	CUL-DE-SA	WALNUT ST	Local	100	80 Slurry	422	25	10550	\$3,385.93
PATHFINDER	CUL-DE-SA	107 TH CT	Local	100	80 Slurry	950	25	23750	\$7,622.36
PATTI	82 ND AV	END	Local	100	80 Slurry	155	25	3875	\$1,243.65
PICKS	103 RD AV	103 RD AV	Local	100	80 Slurry	125	25	3125	\$1,002.94
PICKS	SERENA WY	CUL-DE-SA	Local	100	80 Slurry	211	25	5275	\$1,692.97
PICKS	104 TH AV	104 TH AV	Local	95	75 Slurry	325	25	8125	\$2,607.65
PICKS	104 TH AV	CUL-DE-SA	Local	100	80 Slurry	464	25	11600	\$3,722.92
PONDEROSA	BLACK DIA WY	CUL-DE-SA	Local	100	80 Slurry	270	25	6750	\$2,166.35
REILING	BRAEBURN LN	BELLFLOWE LN	Local	100	80 Slurry	378	25	9450	\$3,032.90
RIVER	TUALATIN DR	TUALATIN DR	Local	93	73 Slurry	635	25	15875	\$5,094.94
RIVERWOOD	BONANZA WY	RIVERWOOD PL	Local	95	75 Slurry	555	25	13875	\$4,453.06
RIVERWOOD	CUL-DE-SA	RIVERWOOD LN	Local	95	75 Slurry	150	25	3750	\$1,203.53
SCOTT	CUL-DE-SA	98 TH AV	Local	100	80 Slurry	450	25	11250	\$3,610.59
SERENA	DURHAM RD	CUL-DE-SA	Local	100	80 Slurry	790	25	19750	\$6,338.59
SHADY	BARBARA LN	SHADY LN	Local	94	74 Slurry	585	25	14625	\$4,693.77
SPRUCE	78 TH AV	74 TH AV	Local	95	75 Slurry	805	25	20125	\$6,458.94
STEVE	END	83 RD AV	Local	95	75 Slurry	185	25	4625	\$1,484.35
STEVE	82 ND AV	81 ST AV	Local	93	73 Slurry	385	25	9625	\$3,089.06

STUART	103 RD AV	CUL-DE-SA	Local	100	80 Slurry	230	25	5750	\$1,845.41
SUMMER LAKE/128TH	CUL-DE-SA	SUMMER LA DR	Local	100	80 Slurry	230	25	5750	\$1,845.41
TALLWOOD	ASHBURY LN	CUL-DE-SA	Local	97	77 Slurry	280	25	7000	\$2,246.59
TAMAWAY	ESSEX DR	136 TH PL	Local	97	77 Slurry	520	25	13000	\$4,172.24
TERRACE TRAILS	CUL-DE-SA	CUL-DE-SA	Local	100	80 Slurry	585	25	14625	\$4,693.77
THORN	82 ND AV	79 TH AV	Local	100	80 Slurry	885	25	22125	\$7,100.83
THURSTON	ASHFORD ST	79 TH AV	Local	100	80 Slurry	620	25	15500	\$4,974.59
TIGARD/117TH	CUL-DE-SA	TIGARD DR	Local	100	80 Slurry	106	25	2650	\$850.49
TIGARD	SUMMERCRE DR	116 TH AV	Local	100	80 Slurry	792	25	19800	\$6,354.64
TORLAND	112 TH AV	END	Local	100	80 Slurry	220	25	5500	\$1,765.18
TUALATIN	108 TH AV	RIVER DR	Local	93	73 Slurry	825	25	20625	\$6,619.41
VARNS	END	CHERRY DR	Local	93	73 Slurry	70	25	1750	\$561.65
VARNS	CHERRY DR	72 ND AV	Local	95	75 Slurry	1675	25	41875	\$13,439.42
VIEWMOUNT	115 TH AV	114 TH AV	Local	93	73 Slurry	310	25	7750	\$2,487.29
VILLAGE GLENN	CUL-DE-SA	VILLAGE G DR	Local	95	75 Slurry	200	25	5000	\$1,604.71
VILLAGE GLENN	CUL-DE-SA	VILLAGE G DR	Local	93	73 Slurry	235	25	5875	\$1,885.53
VIOLA	81 ST AV	80 TH AV	Local	93	73 Slurry	325	25	8125	\$2,607.65
WINTERVIEW	END	END	Local	100	80 Slurry	520	25	13000	\$4,172.24
WOODCREST	RIVERWOOD LN	SERENA WY	Local	93	73 Slurry	1075	25	26875	\$8,625.30
WOODSHIRE	EDGEFIELD TE	MORNINGST DR	Local	95	75 Slurry	310	25	7750	\$2,487.29
102 ND	MCDONALD ST	HILLVIEW ST	Local	95	75 Slurry	400	25	10000	\$3,209.41
103 RD	LADY MARI DR	MURDOCK ST	Local	100	80 Slurry	850	25	21250	\$6,820.00
104 TH	DURHAM RD	CENTURY O DR	Local	95	75 Slurry	240	25	6000	\$1,925.65
104 TH	DEL MONTE DR	END	Local	100	80 Slurry	450	25	11250	\$3,610.59
106 TH	NORTH DAK ST	WINDSOR CT	Local	100	80 Slurry	890	25	22250	\$7,140.94
106 TH	WALNUT ST	CITY LIM	Local	95	75 Slurry	485	25	12125	\$3,891.41
107 TH	TITAN LN	CUL-DE-SA	Local	93	73 Slurry	110	25	2750	\$882.59
108 TH	END	NORTH DAK ST	Local	100	80 Slurry	485	25	12125	\$3,891.41
108 TH	END	BLACK DIA WY	Local	100	80 Slurry	495	25	12375	\$3,971.65
108 TH	BLACK DIA WY	CUL-DE-SA	Local	100	80 Slurry	275	25	6875	\$2,206.47
109 TH	ROYALTY PW	MURDOCK PL	Local	100	80 Slurry	1280	25	32000	\$10,270.12
109 TH	MURDOCK ST	CANTERSUR LN	Local	100	80 Slurry	795	25	19875	\$6,378.71
111 TH	GENEVA ST	BLACK DIA WY	Local	100	80 Slurry	330	25	8250	\$2,647.77
111 TH	END	GENEVA ST	Local	100	80 Slurry	264	25	6600	\$2,118.21
112 TH	END	GAARDE ST	Local	100	80 Slurry	370	25	9250	\$2,968.71
112 TH	TOLAND ST	NORTH DAK ST	Local	100	80 Slurry	375	25	9375	\$3,008.82
114 TH	NORTH DAK ST	CUL-DE-SA	Local	93	73 Slurry	470	25	11750	\$3,771.06
118 TH	GAARDE ST	CUL-DE-SA	Local	100	80 Slurry	750	25	18750	\$6,017.65
121 ST	CUL-DE-SA	CHANDLER DR	Local	100	80 Slurry	195	25	4875	\$1,564.59
122 ND	BEEF BEND RD	END	Local	100	80 Slurry	905	25	22625	\$7,261.30
133 RD	BULL MOUN RD	MOUNTAIN CT	Local	100	80 Slurry	910	25	22750	\$7,301.41
138 TH	FERN ST	WALNUT LN	Local	97	77 Slurry	535	25	13375	\$4,292.59
139 TH	WALNUT LN	MARCIA DR	Local	97	77 Slurry	270	25	6750	\$2,166.35
SCHOOL	PACIFIC HW	GRANT AV	Local	100	80 Slurry	350	25	8750	\$2,808.24
MEADOW	TIEDEMAN AV	CUL-DE-SA	Local	100	80 Slurry	570	25	14250	\$4,573.41
Sub Total									\$676,187.86
Total									\$743,807
Accumulated Reserve Total									\$416,008.85

Road Name



Overlay	Thin	OverContingen	Reconstrn	Slurry
1.25	0.6	0.15	0.2	
1.2875	0.618		0.206	
1.326125	0.63654		0.21218	
1.365909	0.655636		0.218545	
1.406886	0.675305		0.225102	
1.449093	0.695564		0.231855	
1.492565	0.716431		0.23881	
1.537342	0.737924		0.245975	
1.583463	0.760062		6 0.253354	
1.630966	0.782864		6.18 0.260955	
1.679895	0.80635		6.3654 0.268783	
1.730292	0.83054		6.556362 0.276847	
1.782201	0.855457		6.753053 0.285152	
1.835667	0.88112		6.955644 0.293707	
1.890737	0.907554		7.164314 0.302518	
1.947459	0.93478		7.379243 0.311593	
2.005893	0.962824		7.60062 0.320941	
2.06606	0.991709		7.828639 0.33057	
2.128041	1.02146		8.063498 0.340487	
2.191883	1.052104		8.305403 0.350701	
2.257639	1.083667		8.554565 0.361222	
2.325368	1.116177		8.811202 0.372059	
2.395129	1.149662		9.075538 0.383221	
2.466983	1.184152		9.347804 0.394717	
2.540993	1.219676		9.628239 0.406559	
2.617222	1.256267		9.917086 0.418756	
2.695739	1.293955		10.2146 0.431318	
2.776611	1.332773		10.52104 0.444258	
2.85991	1.372757		10.83667 0.457586	
2.945707	1.413939		11.16177 0.471313	
3.034078	1.456357		11.49662 0.485452	

**City of Tigard
Street Maintenance Fee Study
Street Maintenance**

ITE Code	Land Use Category	ITE TRIPS*	UNIT	DU,SF,ACRE, VFP, SC, CITYWIDE	TRIPS/DAY	TRIPS/YEAR 260 days	% OF TOTAL TRIPS	DIRECT COST/YEAR	% OF TOTAL COST	RATE/MO Per Unit
210	SINGLE FAMILY (DETACHED)	9.57	/DU/DAY	10,422	99,739	25,932,020	19.8%	\$158,071	19.8%	1.2639
220	MULTI FAMILY	6.63	/DU/DAY	6,400	42,432	11,032,320	8.4%	\$67,248	8.4%	0.8756
	NON-RESIDENTIAL GROUP 1 (0 - 20)									1.0341
120	General Heavy Industrial	1.50	/KSF/DAY	723,759	1,086	282,266	0.2%	\$8,981	1.1%	
252	Congregate Care Facility	2.15	/DU/DAY	112	241	62,608	0.0%	\$1,390	0.2%	
151	Mini-Warehouse	2.50	/KSF/DAY	328,090	820	213,259	0.2%	\$4,071	0.5%	
140	Manufacturing	3.82	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
311	All Suites Hotel	4.90	/DU/DAY	246	1,205	313,404	0.2%	\$3,053	0.4%	
150	Warehousing	4.96	/KSF/DAY	31,898	158	41,135	0.0%	\$396	0.0%	
864	Toy/Children's Superstore	4.99	/KSF/DAY	44,604	223	57,869	0.0%	\$553	0.1%	
890	Furniture Store	5.06	/KSF/DAY	279,329	1,413	367,485	0.3%	\$3,466	0.4%	
320	Motel	5.63	/DU/DAY	447	2,517	654,319	0.5%	\$5,547	0.7%	
130	Industrial Park	6.96	/KSF/DAY	3,225,614	22,450	5,837,071	4.4%	\$40,026	5.0%	
110	General Light Industrial	6.97	/KSF/DAY	3,219,359	22,439	5,834,122	4.4%	\$39,948	5.0%	
310	Hotel	8.23	/DU/DAY	384	3,160	821,683	0.6%	\$4,765	0.6%	
560	Church	9.11	/KSF/DAY	366,651	3,340	868,450	0.7%	\$4,550	0.6%	
710	General Office	11.01	/KSF/DAY	3,313,850	36,485	9,486,227	7.2%	\$41,121	5.1%	
522	Junior High School	11.92	/KSF/DAY	232,605	2,773	720,888	0.5%	\$2,886	0.4%	
520	Elementary School	12.03	/KSF/DAY	371,802	4,473	1,162,923	0.9%	\$4,614	0.6%	
530	High School	13.27	/KSF/DAY	231,782	3,076	799,693	0.6%	\$2,876	0.4%	
610	Hospital	16.78	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
492	Racquet Club	17.14	/KSF/DAY	31,858	546	141,971	0.1%	\$395	0.0%	
	Subtotals for Group 1				106,405	27,665,373	21.1%	\$168,637	21.1%	
	NON-RESIDENTIAL GROUP 2 (20< - 100)									5.5315
848	Tire Store	24.87	/KSF/DAY	67,269	1,673	434,976	0.3%	\$4,465	0.6%	
820	Shopping Center	27.90	/KSF/DAY	1,825,496	50,928	13,241,199	10.1%	\$121,173	15.1%	
630	Clinic	31.45	/KSF/DAY	13,111	412	107,207	0.1%	\$870	0.1%	
862	Home Improvement Superstore	35.05	/KSF/DAY	250,084	8,765	2,279,015	1.7%	\$16,600	2.1%	
817	Nursery (Garden Center)	36.08	/KSF/DAY	13,897	501	130,364	0.1%	\$922	0.1%	
720	Medical-Dental Office Building	36.13	/KSF/DAY	275,493	9,954	2,587,926	2.0%	\$18,287	2.3%	
841	New Car Sales	37.50	/KSF/DAY	218,162	8,181	2,127,081	1.6%	\$14,481	1.8%	
813	Free-Standing Discount Superstore	37.57	/KSF/DAY	141,530	5,317	1,382,424	1.1%	\$9,395	1.2%	
812	Building Materials and Lumber Store	39.71	/KSF/DAY	104,182	4,137	1,075,637	0.8%	\$6,915	0.9%	
814	Specialty Retail Center	40.67	/KSF/DAY	685,461	27,878	7,248,202	5.5%	\$45,500	5.7%	
861	Discount Club	41.80	/KSF/DAY	144,571	6,043	1,571,200	1.2%	\$9,596	1.2%	
880	Pharmacy/Drugstore	45.03	/KSF/DAY	17,202	775	201,395	0.2%	\$1,142	0.1%	
863	Electronics Superstore	45.04	/KSF/DAY	64,954	2,926	760,638	0.6%	\$4,312	0.5%	
815	Free-Standing Discount Store	45.30	/KSF/DAY	484,169	21,935	5,703,046	4.3%	\$32,138	4.0%	
816	Hardware/Paint Store	51.29	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
590	Library	54.00	/KSF/DAY	13,006	702	182,604	0.1%	\$863	0.1%	
843	Automobile Parts Sales	61.91	/KSF/DAY	42,082	2,605	677,380	0.5%	\$2,793	0.3%	
730	Government Office	68.93	/KSF/DAY	78,983	5,444	1,415,516	1.1%	\$5,243	0.7%	
850	Supermarket	78.06	/KSF/DAY	305,121	23,817	6,192,378	4.7%	\$20,253	2.5%	
832	High-Turnover (Sit Down) Restaurant	78.20	/KSF/DAY	129,997	10,166	2,643,233	2.0%	\$8,629	1.1%	
565	Day Care Center	79.26	/KSF/DAY	51,624	4,092	1,063,847	0.8%	\$3,427	0.4%	
844	Gasoline/Service Station (Avg. 844, 845,846)	80.70	/VFP/DAY	130	10,490	2,727,491	2.1%	\$8,629	1.1%	
831	Quality Restaurant	89.95	/KSF/DAY	104,767	9,424	2,450,190	1.9%	\$6,954	0.9%	
	Subtotals for Group 2				216,165	56,202,948	42.8%	\$342,590	42.8%	
	NON-RESIDENTIAL GROUP 3 (100< - 400)									26.7783
732	Post Office	108.19	/KSF/DAY	21,487	2,325	604,416	0.5%	\$6,905	0.9%	
912	Bank	132.61	/KSF/DAY	73,293	9,719	2,526,945	1.9%	\$23,552	2.9%	
834	Fast-Food Restaurant	248.06	/KSF/DAY	63,787	15,823	4,113,987	3.1%	\$20,497	2.6%	
851	Convenience Market (24-Hour)	295.20	/KSF/DAY	23,863	7,044	1,831,474	1.4%	\$7,668	1.0%	
444	Movie Theater With Matinee (See Report)	375.92	/SC/DAY	12	4,511	1,172,870	0.9%	\$3,856	0.5%	
	Subtotals for Group 3				39,422	10,249,692	7.8%	\$62,478	7.8%	
	NON-RESIDENTIAL GROUP 4 (SPECIAL)									0.3570
411	City Park	1.59	/AC/DAY	152	242	62,837	0.0%	\$651	0.1%	
566	Cemetery	4.73	/AC/DAY	28	131	34,188	0.0%	\$119	0.0%	
430	Golf Course	5.04	/AC/DAY	48	243	63,240	0.0%	\$207	0.0%	
	Subtotals for Group 5				616	160,265	0.1%	\$977	0.1%	
	TOTALS				504,779	131,242,619	100.0%	\$800,000	100.0%	

*** Shaded cells denote daily trips adjusted down for pass-by trips

Enter Revenue Desired: \$800,000

**City of Tigard
Street Maintenance Fee Study
ROW Maintenance (Citywide)**

ITE Code	Land Use Category	ITE TRIPS*	UNIT	DU,SF,ACRE, VFP, SC, CITYWIDE	TRIPS/DAY	TRIPS/YEAR 260 days	% OF TOTAL TRIPS	DIRECT COST/YEAR	% OF TOTAL COST	RATE/MO Per Unit
210	SINGLE FAMILY (DETACHED)	9.57	/DU/DAY	10,422	99,739	25,932,020	19.8%	\$53,349	19.8%	0.4266
220	MULTI FAMILY	6.63	/DU/DAY	6,400	42,432	11,032,320	8.4%	\$22,696	8.4%	0.2955
	NON-RESIDENTIAL GROUP 1 (0 - 20)									0.3490
120	General Heavy Industrial	1.50	/KSF/DAY	723,759	1,086	282,266	0.2%	\$3,031	1.1%	
252	Congregate Care Facility	2.15	/DU/DAY	112	241	62,608	0.0%	\$469	0.2%	
151	Mini-Warehouse	2.50	/KSF/DAY	328,090	820	213,259	0.2%	\$1,374	0.5%	
140	Manufacturing	3.82	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
311	All Suites Hotel	4.90	/DU/DAY	246	1,205	313,404	0.2%	\$1,030	0.4%	
150	Warehousing	4.96	/KSF/DAY	31,898	158	41,135	0.0%	\$134	0.0%	
864	Toy/Children's Superstore	4.99	/KSF/DAY	44,604	223	57,869	0.0%	\$187	0.1%	
890	Furniture Store	5.06	/KSF/DAY	279,329	1,413	367,485	0.3%	\$1,170	0.4%	
320	Motel	5.63	/DU/DAY	447	2,517	654,319	0.5%	\$1,872	0.7%	
130	Industrial Park	6.96	/KSF/DAY	3,225,614	22,450	5,837,071	4.4%	\$13,509	5.0%	
110	General Light Industrial	6.97	/KSF/DAY	3,219,359	22,439	5,834,122	4.4%	\$13,482	5.0%	
310	Hotel	8.23	/DU/DAY	384	3,160	821,683	0.6%	\$1,608	0.6%	
560	Church	9.11	/KSF/DAY	366,651	3,340	868,450	0.7%	\$1,536	0.6%	
710	General Office	11.01	/KSF/DAY	3,313,850	36,485	9,486,227	7.2%	\$13,878	5.1%	
522	Junior High School	11.92	/KSF/DAY	232,605	2,773	720,888	0.5%	\$974	0.4%	
520	Elementary School	12.03	/KSF/DAY	371,802	4,473	1,162,923	0.9%	\$1,557	0.6%	
530	High School	13.27	/KSF/DAY	231,782	3,076	799,693	0.6%	\$971	0.4%	
610	Hospital	16.78	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
492	Racquet Club	17.14	/KSF/DAY	31,858	546	141,971	0.1%	\$133	0.0%	
	Subtotals for Group 1				106,405	27,665,373	21.1%	\$56,915	21.1%	
	NON-RESIDENTIAL GROUP 2 (20< - 100)									1.8669
848	Tire Store	24.87	/KSF/DAY	67,269	1,673	434,976	0.3%	\$1,507	0.6%	
820	Shopping Center	27.90	/KSF/DAY	1,825,496	50,928	13,241,199	10.1%	\$40,896	15.1%	
630	Clinic	31.45	/KSF/DAY	13,111	412	107,207	0.1%	\$294	0.1%	
862	Home Improvement Superstore	35.05	/KSF/DAY	250,084	8,765	2,279,015	1.7%	\$5,603	2.1%	
817	Nursery (Garden Center)	36.08	/KSF/DAY	13,897	501	130,364	0.1%	\$311	0.1%	
720	Medical-Dental Office Building	36.13	/KSF/DAY	275,493	9,954	2,587,926	2.0%	\$6,172	2.3%	
841	New Car Sales	37.50	/KSF/DAY	218,162	8,181	2,127,081	1.6%	\$4,887	1.8%	
813	Free-Standing Discount Superstore	37.57	/KSF/DAY	141,530	5,317	1,382,424	1.1%	\$3,171	1.2%	
812	Building Materials and Lumber Store	39.71	/KSF/DAY	104,182	4,137	1,075,637	0.8%	\$2,334	0.9%	
814	Specialty Retail Center	40.67	/KSF/DAY	685,461	27,878	7,248,202	5.5%	\$15,356	5.7%	
861	Discount Club	41.80	/KSF/DAY	144,571	6,043	1,571,200	1.2%	\$3,239	1.2%	
880	Pharmacy/Drugstore	45.03	/KSF/DAY	17,202	775	201,395	0.2%	\$385	0.1%	
863	Electronics Superstore	45.04	/KSF/DAY	64,954	2,926	760,638	0.6%	\$1,455	0.5%	
815	Free-Standing Discount Store	45.30	/KSF/DAY	484,169	21,935	5,703,046	4.3%	\$10,847	4.0%	
816	Hardware/Paint Store	51.29	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
590	Library	54.00	/KSF/DAY	13,006	702	182,604	0.1%	\$291	0.1%	
843	Automobile Parts Sales	61.91	/KSF/DAY	42,082	2,605	677,380	0.5%	\$943	0.3%	
730	Government Office	68.93	/KSF/DAY	78,983	5,444	1,415,516	1.1%	\$1,769	0.7%	
850	Supermarket	78.06	/KSF/DAY	305,121	23,817	6,192,378	4.7%	\$6,836	2.5%	
832	High-Turnover (Sit Down) Restaurant	78.20	/KSF/DAY	129,997	10,166	2,643,233	2.0%	\$2,912	1.1%	
565	Day Care Center	79.26	/KSF/DAY	51,624	4,092	1,063,847	0.8%	\$1,157	0.4%	
844	Gasoline/Service Station (Avg. 844, 845,846)	80.70	/VFP/DAY	130	10,490	2,727,491	2.1%	\$2,912	1.1%	
831	Quality Restaurant	89.95	/KSF/DAY	104,767	9,424	2,450,190	1.9%	\$2,347	0.9%	
	Subtotals for Group 2				216,165	56,202,948	42.8%	\$115,624	42.8%	
	NON-RESIDENTIAL GROUP 3 (100< - 400)									9.0377
732	Post Office	108.19	/KSF/DAY	21,487	2,325	604,416	0.5%	\$2,330	0.9%	
912	Bank	132.61	/KSF/DAY	73,293	9,719	2,526,945	1.9%	\$7,949	2.9%	
834	Fast-Food Restaurant	248.06	/KSF/DAY	63,787	15,823	4,113,987	3.1%	\$6,918	2.6%	
851	Convenience Market (24-Hour)	295.20	/KSF/DAY	23,863	7,044	1,831,474	1.4%	\$2,588	1.0%	
444	Movie Theater With Matinee (See Report)	375.92	/SC/DAY	12	4,511	1,172,870	0.9%	\$1,301	0.5%	
	Subtotals for Group 3				39,422	10,249,692	7.8%	\$21,086	7.8%	
	NON-RESIDENTIAL GROUP 4 (SPECIAL)									0.1205
411	City Park	1.59	/AC/DAY	152	242	62,837	0.0%	\$220	0.1%	
566	Cemetery	4.73	/AC/DAY	28	131	34,188	0.0%	\$40	0.0%	
430	Golf Course	5.04	/AC/DAY	48	243	63,240	0.0%	\$70	0.0%	
	Subtotals for Group 5				616	160,265	0.1%	\$330	0.1%	
	TOTALS				504,779	131,242,619	100.0%	\$270,000	100.0%	

*** Shaded cells denote daily trips adjusted down for pass-by trips

Enter Revenue Desired: \$270,000

Note: DU (DWELLING UNITS), SF (SQUARE FEET), ACRE (ACRES), VFP (VEHICLE FILL POINTS), SC (SCREENS)

I:\ENGBRIANR\BUDGET STUFF\Adjusted Street Maintenance Fee - Pass By - 10-7-02.xls

Appendix B-2

**City of Tigard
Street Maintenance Fee Study
Sidewalk Maintenance (Citywide)**

ITE Code	Land Use Category	ITE TRIPS*	UNIT	DU,SF,ACRE, VFP, SC, CITYWIDE	TRIPS/DAY	TRIPS/YEAR 260 days	% OF TOTAL TRIPS	DIRECT COST/YEAR	% OF TOTAL COST	RATE/MO Per Unit
210	SINGLE FAMILY (DETACHED)	9.57	/DU/DAY	10,422	99,739	25,932,020	19.8%	\$17,783	19.8%	0.1422
220	MULTI FAMILY	6.63	/DU/DAY	6,400	42,432	11,032,320	8.4%	\$7,565	8.4%	0.0985
	NON-RESIDENTIAL GROUP 1 (0 - 20)									0.1163
120	General Heavy Industrial	1.50	/KSF/DAY	723,759	1,086	282,266	0.2%	\$1,010	1.1%	
252	Congregate Care Facility	2.15	/DU/DAY	112	241	62,608	0.0%	\$156	0.2%	
151	Mini-Warehouse	2.50	/KSF/DAY	328,090	820	213,259	0.2%	\$458	0.5%	
140	Manufacturing	3.82	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
311	All Suites Hotel	4.90	/DU/DAY	246	1,205	313,404	0.2%	\$343	0.4%	
150	Warehousing	4.96	/KSF/DAY	31,898	158	41,135	0.0%	\$45	0.0%	
864	Toy/Children's Superstore	4.99	/KSF/DAY	44,604	223	57,869	0.0%	\$62	0.1%	
890	Furniture Store	5.06	/KSF/DAY	279,329	1,413	367,485	0.3%	\$390	0.4%	
320	Motel	5.63	/DU/DAY	447	2,517	654,319	0.5%	\$624	0.7%	
130	Industrial Park	6.96	/KSF/DAY	3,225,614	22,450	5,837,071	4.4%	\$4,503	5.0%	
110	General Light Industrial	6.97	/KSF/DAY	3,219,359	22,439	5,834,122	4.4%	\$4,494	5.0%	
310	Hotel	8.23	/DU/DAY	384	3,160	821,683	0.6%	\$536	0.6%	
560	Church	9.11	/KSF/DAY	366,651	3,340	868,450	0.7%	\$512	0.6%	
710	General Office	11.01	/KSF/DAY	3,313,850	36,485	9,486,227	7.2%	\$4,626	5.1%	
522	Junior High School	11.92	/KSF/DAY	232,605	2,773	720,888	0.5%	\$325	0.4%	
520	Elementary School	12.03	/KSF/DAY	371,802	4,473	1,162,923	0.9%	\$519	0.6%	
530	High School	13.27	/KSF/DAY	231,782	3,076	799,693	0.6%	\$324	0.4%	
610	Hospital	16.78	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
492	Racquet Club	17.14	/KSF/DAY	31,858	546	141,971	0.1%	\$44	0.0%	
	Subtotals for Group 1				106,405	27,665,373	21.1%	\$18,972	21.1%	
	NON-RESIDENTIAL GROUP 2 (20< - 100)									0.6223
848	Tire Store	24.87	/KSF/DAY	67,269	1,673	434,976	0.3%	\$502	0.6%	
820	Shopping Center	27.90	/KSF/DAY	1,825,496	50,928	13,241,199	10.1%	\$13,632	15.1%	
630	Clinic	31.45	/KSF/DAY	13,111	412	107,207	0.1%	\$98	0.1%	
862	Home Improvement Superstore	35.05	/KSF/DAY	250,084	8,765	2,279,015	1.7%	\$1,868	2.1%	
817	Nursery (Garden Center)	36.08	/KSF/DAY	13,897	501	130,364	0.1%	\$104	0.1%	
720	Medical-Dental Office Building	36.13	/KSF/DAY	275,493	9,954	2,587,926	2.0%	\$2,057	2.3%	
841	New Car Sales	37.50	/KSF/DAY	218,162	8,181	2,127,081	1.6%	\$1,629	1.8%	
813	Free-Standing Discount Superstore	37.57	/KSF/DAY	141,530	5,317	1,382,424	1.1%	\$1,057	1.2%	
812	Building Materials and Lumber Store	39.71	/KSF/DAY	104,182	4,137	1,075,637	0.8%	\$778	0.9%	
814	Specialty Retail Center	40.67	/KSF/DAY	685,461	27,878	7,248,202	5.5%	\$5,119	5.7%	
861	Discount Club	41.80	/KSF/DAY	144,571	6,043	1,571,200	1.2%	\$1,080	1.2%	
880	Pharmacy/Drugstore	45.03	/KSF/DAY	17,202	775	201,395	0.2%	\$128	0.1%	
863	Electronics Superstore	45.04	/KSF/DAY	64,954	2,926	760,638	0.6%	\$485	0.5%	
815	Free-Standing Discount Store	45.30	/KSF/DAY	484,169	21,935	5,703,046	4.3%	\$3,616	4.0%	
816	Hardware/Paint Store	51.29	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
590	Library	54.00	/KSF/DAY	13,006	702	182,604	0.1%	\$97	0.1%	
843	Automobile Parts Sales	61.91	/KSF/DAY	42,082	2,605	677,380	0.5%	\$314	0.3%	
730	Government Office	68.93	/KSF/DAY	78,983	5,444	1,415,516	1.1%	\$590	0.7%	
850	Supermarket	78.06	/KSF/DAY	305,121	23,817	6,192,378	4.7%	\$2,279	2.5%	
832	High-Turnover (Sit Down) Restaurant	78.20	/KSF/DAY	129,997	10,166	2,643,233	2.0%	\$971	1.1%	
565	Day Care Center	79.26	/KSF/DAY	51,624	4,092	1,063,847	0.8%	\$386	0.4%	
844	Gasoline/Service Station (Avg. 844, 845,846)	80.70	/VFP/DAY	130	10,490	2,727,491	2.1%	\$971	1.1%	
831	Quality Restaurant	89.95	/KSF/DAY	104,767	9,424	2,450,190	1.9%	\$782	0.9%	
	Subtotals for Group 2				216,165	56,202,948	42.8%	\$38,541	42.8%	
	NON-RESIDENTIAL GROUP 3 (100< - 400)									3.0126
732	Post Office	108.19	/KSF/DAY	21,487	2,325	604,416	0.5%	\$777	0.9%	
912	Bank	132.61	/KSF/DAY	73,293	9,719	2,526,945	1.9%	\$2,650	2.9%	
834	Fast-Food Restaurant	248.06	/KSF/DAY	63,787	15,823	4,113,987	3.1%	\$2,306	2.6%	
851	Convenience Market (24-Hour)	295.20	/KSF/DAY	23,863	7,044	1,831,474	1.4%	\$863	1.0%	
444	Movie Theater With Matinee (See Report)	375.92	/SC/DAY	12	4,511	1,172,870	0.9%	\$434	0.5%	
	Subtotals for Group 3				39,422	10,249,692	7.8%	\$7,029	7.8%	
	NON-RESIDENTIAL GROUP 4 (SPECIAL)									0.0402
411	City Park	1.59	/AC/DAY	152	242	62,837	0.0%	\$73	0.1%	
566	Cemetery	4.73	/AC/DAY	28	131	34,188	0.0%	\$13	0.0%	
430	Golf Course	5.04	/AC/DAY	48	243	63,240	0.0%	\$23	0.0%	
	Subtotals for Group 5				616	160,265	0.1%	\$110	0.1%	
	TOTALS				504,779	131,242,619	100.0%	\$90,000	100.0%	

*** Shaded cells denote daily trips adjusted down for pass-by trips

Enter Revenue Desired: \$90,000

Note: DU (DWELLING UNITS), SF (SQUARE FEET), ACRE (ACRES), VFP (VEHICLE FILL POINTS), SC (SCREENS)

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Appendix B-3

PAGE 1 OF 1
Date: 10/7/02

City of Tigard
Street Maintenance Fee Study
Street Light Maintenance

ITE Code	Land Use Category	ITE TRIPS*	UNIT	DU,SF,ACRE, VFP, SC, CITYWIDE	TRIPS/DAY	TRIPS/YEAR 260 days	% OF TOTAL TRIPS	DIRECT COST/YEAR	% OF TOTAL COST	RATE/MO Per Unit
210	SINGLE FAMILY (DETACHED)	9.57	/DU/DAY	10,422	99,739	25,932,020	19.8%	\$87,927	19.8%	0.7031
220	MULTI FAMILY	6.63	/DU/DAY	6,400	42,432	11,032,320	8.4%	\$37,407	8.4%	0.4871
	NON-RESIDENTIAL GROUP 1 (0 - 20)									0.5752
120	General Heavy Industrial	1.50	/KSF/DAY	723,759	1,086	282,266	0.2%	\$4,996	1.1%	
252	Congregate Care Facility	2.15	/DU/DAY	112	241	62,608	0.0%	\$773	0.2%	
151	Mini-Warehouse	2.50	/KSF/DAY	328,090	820	213,259	0.2%	\$2,265	0.5%	
140	Manufacturing	3.82	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
311	All Suites Hotel	4.90	/DU/DAY	246	1,205	313,404	0.2%	\$1,698	0.4%	
150	Warehousing	4.96	/KSF/DAY	31,898	158	41,135	0.0%	\$220	0.0%	
864	Toy/Children's Superstore	4.99	/KSF/DAY	44,604	223	57,869	0.0%	\$308	0.1%	
890	Furniture Store	5.06	/KSF/DAY	279,329	1,413	367,485	0.3%	\$1,928	0.4%	
320	Motel	5.63	/DU/DAY	447	2,517	654,319	0.5%	\$3,085	0.7%	
130	Industrial Park	6.96	/KSF/DAY	3,225,614	22,450	5,837,071	4.4%	\$22,264	5.0%	
110	General Light Industrial	6.97	/KSF/DAY	3,219,359	22,439	5,834,122	4.4%	\$22,221	5.0%	
310	Hotel	8.23	/DU/DAY	384	3,160	821,683	0.6%	\$2,650	0.6%	
560	Church	9.11	/KSF/DAY	366,651	3,340	868,450	0.7%	\$2,531	0.6%	
710	General Office	11.01	/KSF/DAY	3,313,850	36,485	9,486,227	7.2%	\$22,873	5.1%	
522	Junior High School	11.92	/KSF/DAY	232,605	2,773	720,888	0.5%	\$1,606	0.4%	
520	Elementary School	12.03	/KSF/DAY	371,802	4,473	1,162,923	0.9%	\$2,566	0.6%	
530	High School	13.27	/KSF/DAY	231,782	3,076	799,693	0.6%	\$1,600	0.4%	
610	Hospital	16.78	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
492	Racquet Club	17.14	/KSF/DAY	31,858	546	141,971	0.1%	\$220	0.0%	
	Subtotals for Group 1				106,405	27,665,373	21.1%	\$93,804	21.1%	
	NON-RESIDENTIAL GROUP 2 (20< - 100)									3.0769
848	Tire Store	24.87	/KSF/DAY	67,269	1,673	434,976	0.3%	\$2,484	0.6%	
820	Shopping Center	27.90	/KSF/DAY	1,825,496	50,928	13,241,199	10.1%	\$67,403	15.1%	
630	Clinic	31.45	/KSF/DAY	13,111	412	107,207	0.1%	\$484	0.1%	
862	Home Improvement Superstore	35.05	/KSF/DAY	250,084	8,765	2,279,015	1.7%	\$9,234	2.1%	
817	Nursery (Garden Center)	36.08	/KSF/DAY	13,897	501	130,364	0.1%	\$513	0.1%	
720	Medical-Dental Office Building	36.13	/KSF/DAY	275,493	9,954	2,587,926	2.0%	\$10,172	2.3%	
841	New Car Sales	37.50	/KSF/DAY	218,162	8,181	2,127,081	1.6%	\$8,055	1.8%	
813	Free-Standing Discount Superstore	37.57	/KSF/DAY	141,530	5,317	1,382,424	1.1%	\$5,226	1.2%	
812	Building Materials and Lumber Store	39.71	/KSF/DAY	104,182	4,137	1,075,637	0.8%	\$3,847	0.9%	
814	Specialty Retail Center	40.67	/KSF/DAY	685,461	27,878	7,248,202	5.5%	\$25,309	5.7%	
861	Discount Club	41.80	/KSF/DAY	144,571	6,043	1,571,200	1.2%	\$5,338	1.2%	
880	Pharmacy/Drugstore	45.03	/KSF/DAY	17,202	775	201,395	0.2%	\$635	0.1%	
863	Electronics Superstore	45.04	/KSF/DAY	64,954	2,926	760,638	0.6%	\$2,398	0.5%	
815	Free-Standing Discount Store	45.30	/KSF/DAY	484,169	21,935	5,703,046	4.3%	\$17,877	4.0%	
816	Hardware/Paint Store	51.29	/KSF/DAY	0	0	0	0.0%	\$0	0.0%	
590	Library	54.00	/KSF/DAY	13,006	702	182,604	0.1%	\$480	0.1%	
843	Automobile Parts Sales	61.91	/KSF/DAY	42,082	2,605	677,380	0.5%	\$1,554	0.3%	
730	Government Office	68.93	/KSF/DAY	78,983	5,444	1,415,516	1.1%	\$2,916	0.7%	
850	Supermarket	78.06	/KSF/DAY	305,121	23,817	6,192,378	4.7%	\$11,266	2.5%	
832	High-Turnover (Sit Down) Restaurant	78.20	/KSF/DAY	129,997	10,166	2,643,233	2.0%	\$4,800	1.1%	
565	Day Care Center	79.26	/KSF/DAY	51,624	4,092	1,063,847	0.8%	\$1,906	0.4%	
844	Gasoline/Service Station (Avg. 844, 845,846)	80.70	/VFP/DAY	130	10,490	2,727,491	2.1%	\$4,800	1.1%	
831	Quality Restaurant	89.95	/KSF/DAY	104,767	9,424	2,450,190	1.9%	\$3,868	0.9%	
	Subtotals for Group 2				216,165	56,202,948	42.8%	\$190,565	42.8%	
	NON-RESIDENTIAL GROUP 3 (100< - 400)									14.8954
732	Post Office	108.19	/KSF/DAY	21,487	2,325	604,416	0.5%	\$3,841	0.9%	
912	Bank	132.61	/KSF/DAY	73,293	9,719	2,526,945	1.9%	\$13,101	2.9%	
834	Fast-Food Restaurant	248.06	/KSF/DAY	63,787	15,823	4,113,987	3.1%	\$11,402	2.6%	
851	Convenience Market (24-Hour)	295.20	/KSF/DAY	23,863	7,044	1,831,474	1.4%	\$4,265	1.0%	
444	Movie Theater With Matinee (See Report)	375.92	/SC/DAY	12	4,511	1,172,870	0.9%	\$2,145	0.5%	
	Subtotals for Group 3				39,422	10,249,692	7.8%	\$34,753	7.8%	
	NON-RESIDENTIAL GROUP 4 (SPECIAL)									0.1986
411	City Park	1.59	/AC/DAY	152	242	62,837	0.0%	\$362	0.1%	
566	Cemetery	4.73	/AC/DAY	28	131	34,188	0.0%	\$66	0.0%	
430	Golf Course	5.04	/AC/DAY	48	243	63,240	0.0%	\$115	0.0%	
	Subtotals for Group 5				616	160,265	0.1%	\$543	0.1%	
	TOTALS				504,779	131,242,619	100.0%	\$445,000	100.0%	

*** Shaded cells denote daily trips adjusted down for pass-by trips

Enter Revenue Desired: \$445,000

Note: DU (DWELLING UNITS), SF (SQUARE FEET), ACRE (ACRES), VFP (VEHICLE FILL POINTS), SC (SCREENS)

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PAGE 1 OF 1

Date: 10/7/02

**City of Tigard
Street Maintenance Fee Study
Summary of Rates**

ITE Code	Land Use Category	Street Fee Rate	ROW Fee Rate	Sidewalk Fee Rate	Streetlight Fee Rate	Totals
210	SINGLE FAMILY (DETACHED)	1.2639	0.4266	0.1422	0.7031	2.5357
220	MULTI FAMILY	0.8756	0.2955	0.0985	0.4871	1.7567
	NON-RESIDENTIAL GROUP 1 (0 - 20)	1.0341	0.3490	0.1163	0.5752	2.0746
120	General Heavy Industrial					
252	Congregate Care Facility					
151	Mini-Warehouse					
140	Manufacturing					
311	All Suites Hotel					
150	Warehousing					
864	Toy/Children's Superstore					
890	Furniture Store					
320	Motel					
130	Industrial Park					
110	General Light Industrial					
310	Hotel					
560	Church					
710	General Office					
522	Junior High School					
520	Elementary School					
530	High School					
610	Hospital					
492	Racquet Club					
	NON-RESIDENTIAL GROUP 2 (20< - 100)	5.5315	1.8669	0.6223	3.0769	11.0976
848	Tire Store					
820	Shopping Center					
630	Clinic					
862	Home Improvement Superstore					
817	Nursery (Garden Center)					
720	Medical-Dental Office Building					
841	New Car Sales					
813	Free-Standing Discount Superstore					
812	Building Materials and Lumber Store					
814	Specialty Retail Center					
861	Discount Club					
880	Pharmacy/Drugstore					
863	Electronics Superstore					
815	Free-Standing Discount Store					
816	Hardware/Paint Store					
590	Library					
843	Automobile Parts Sales					
730	Government Office					
850	Supermarket					
832	High-Turnover (Sit Down) Restaurant					
565	Day Care Center					
844	Gasoline/Service Station (Avg. 844, 845,846)					
831	Quality Restaurant					
	NON-RESIDENTIAL GROUP 3 (100< - 400)	26.7783	9.0377	3.0126	14.8954	53.7239
732	Post Office					
912	Bank					
834	Fast-Food Restaurant					
851	Convenience Market (24-Hour)					
444	Movie Theater With Matinee (See Report)					
	NON-RESIDENTIAL GROUP 4 (SPECIAL)	0.3570	0.1205	0.0402	0.1986	0.7162
411	City Park					
566	Cemetery					
430	Golf Course					

APPENDIX D

Street Maintenance Fee Adjustments for Pass-By Trips

October 4, 2002

Background

The Street Maintenance Fee Study Report used trip generation rates that basically count the total volume of vehicles entering and exiting a given site. During our meetings with the businesses in Tigard, some asked the city to consider adjusting the trip generation information to account for “pass-by trips,” and “diverted-linked trips.”

The Institute of Transportation Engineers (ITE) Trip Generation Handbook dated March 2001 divides trips into two major categories: pass-by trips and non-pass-by trips. Non-pass-by trips are further broken down into primary trips and diverted linked trips. The definitions for the trips are as follows:

- **Pass-by trips** are trips that “are made as intermediate stops on the way from an origin to a primary trip destination without a route diversion. Pass-by trips are attracted from traffic passing the site on an adjacent street or roadway that offers direct access to the generator. Pass-by trips are not diverted from another roadway.” (Source, Trip Generation Handbook, An ITE Recommended Practice, March 2001). An example of this type of trip is a stop at a gas station on the way to another destination.
- **Primary trips** are trips made for the specific purpose of visiting the generator. The stop at the generator is the primary reasons for the trip. The trip typically goes from origin to generator and then returns to the origin.
- **Diverted linked trips** are trips that are attracted from the traffic volume on roadways within the vicinity of the generator but that require a diversion from that roadway to another roadway to gain access to the site. Diverted linked trips add traffic to streets adjacent to a site, but may not add traffic to the area’s major travel routes. For instance, some of Costco’s trips could be considered diverted linked trips from Pacific Highway. However, these trips still affect the adjacent street, namely Dartmouth Street.

The Trip Generation Handbook contains data collected from various traffic engineers for various retail uses in the United States. The data comes from traffic impact reports where actual pass-by trips were studied and applied to specific uses. Hence, the data is scattered over a range of sizes for a given use. Nonetheless, ITE has compiled the data and provides the results in graphical form.

Pass-by Trip Adjustments

The following pass-by trip adjustments are recommended based upon data provided by the Institute of Transportation Engineers Trip Generation Handbook, An ITE Recommended Practice, dated March 2001.

APPENDIX D

ITE CODE	LAND USE CATEGORY	PASS-BY TRIPS (%)	NOTES
813	Free-Standing Discount Superstore	20	
815	Free-Standing Discount Store	20	
820	Shopping Center	35	Average for all sizes
832	High-Turnover (Sit Down) Restaurant	40	
833, 834	Fast Food Restaurant	50	Average includes those with and without drive-up
844, 845, 846	Gasoline/Service Stations	50	Average includes stations with markets and/or car washes
850	Supermarket	30	
851	Convenience Market (24-Hour)	60	
880, 881	Pharmacy/Drugstore	50	With or without drive-up
912	Bank	50	

The uses listed in the table are those shown in the Trip Generation Handbook with more than three different traffic study data. There were other uses listed by ITE, but are not contained in the City table because of insufficient data. The uses that were not included in the City table are as follows:

- Quality Restaurants Only 1 study
- Tire Store Only 3 studies
- Home Improvement Store Only 3 studies
- Electronic Superstore Only 1 study
- Furniture Store Only 3 studies.

Adjusted Fees

Summary of Fees for All Maintenance Elements

Land Use Category	Street Maint.	ROW Maint.	Sidewalk Maint.	Street Light and Signal System Maint.	Total Monthly Charge per Unit
Single Family	\$1.2639	\$0.4266	\$0.1422	\$0.7031	\$2.5357
Multi-Family	\$0.8756	\$0.2955	\$0.0985	\$0.4871	\$1.7567
Group 1	\$1.0341	\$0.3490	\$0.1163	\$0.5752	\$2.0746
Group 2	\$5.5315	\$1.8669	\$0.6223	\$3.0769	\$11.0976
Group 3	\$26.7783	\$9.0377	\$3.0126	\$14.8954	\$53.7239
Group 4	\$0.3570	\$0.1205	\$0.0402	\$0.1986	\$0.7162

The preceding table summarizes the rates with the credit for pass-by trips given. The exceptionally high trip rates for the fast food restaurants and convenience markets are modified and the net trip generation rates are used for calculating the fees.



CITY OF TIGARD

Engineering Department

Shaping A Better Community

MEMORANDUM

CITY OF TIGARD

13125 SW Hall Blvd.
Tigard, OR 97223
Phone 503-639-4171
Fax: 503-624-0752

TO: Mayor and City Councilors
Bill Monahan, City Manager

FROM: Gus Duenas
City Engineer

DATE: May 6, 2003

SUBJECT: Answers to Council Questions Regarding the Street Maintenance Fee

Below are questions received on April 30, May 1 and May 2, 2003 from City Council regarding the proposed Street Maintenance Fee. Questions will be shown in **bold**, with the responses immediately below. Questions were received from four Council members (Mayor Griffith, Sydney Sherwood, Nick Wilson and Craig Dirksen). There were some questions that were similar in nature, so I have grouped them together before responding.

- **There has been no discussion from the Business Industry about their concept of assisting with the determination. Several offered to participate in an options evaluation, looking for reasonable option. Would it place us in a difficult position if we were to call together a group of Business folks and let them have a go at developing an acceptable formula?**

Response:

Staff could certainly invite members of the business community to offer proposed solutions. Early in the process, Staff met with and contacted several businesses to inform them of the intent. So far, the only input Staff has received is a clear message that they do not want the fee. There have been no alternative fee methodologies offered by the business community. Staff could do more if Council chooses to delay implementation of the fee. However, it is clear that the business community feels that more of the burden should be shifted to residential uses. Changing the percentages to have the residential users pay 50% of the anticipated fees increases the monthly rate to \$4.51 for single family detached and \$3.12 for multi-family units. The City of Wilsonville implemented a 50-50 split and the same could be considered by Council for the proposed fee.

- **Does the formula that we and other cities use specify the difference in impact of travel between the impacts of a truck versus a car on wear and damage to a ROW?**

Recognizing that a number of other cities have the fee, what formula do they use? Is it the same as ours?

Response:

The proposed methodology considers only the overall intensity of vehicle trips generated. It does not include a factor for truck traffic. This is the same methodology used by the City of Tualatin. The Institute of Transportation Engineers (ITE) suggests that the use of vehicle trip generation factors for each use is a reasonable basis for setting a fee. ITE also indicates that cities can further refine their methodology by making the following adjustments:

- Distinguish among households with varying trip generation rates. The ITE manual provides trip adjustment factors for households by size, auto ownership and density. An application process would need to be developed to simplify the administration of a maintenance fee waiver or special maintenance fee. Staff has not considered this refinement to date, as it appears such an adjustment would encompass significant staff time that is not available due to recent budget cuts.
- Adjust trip generation estimates for pass-by trips that are attracted to commercial properties as intermediate stops on the way to primary destinations, also for internal trips within mixed-use developments that never venture onto the public road system. Staff included adjustments for pass-by trips in the proposed methodology.
- Adjust for the volume of truck traffic generated by different land uses. In terms of wear and tear on pavement, heavily loaded trucks are equivalent to hundreds or even thousands of automobiles. Accordingly, highway cost allocation studies have used equivalent single-axle loads as a basis for allocating pavement rehabilitation and maintenance costs. Some adjustment is necessary whenever trucks represent a significant portion of traffic on a jurisdiction's roads. The TSP states that truck traffic makes up at most 5% of the traffic in Tigard. This is considered normal. Factoring in truck traffic will most likely increase the participation of the major businesses rather than reducing it.
- Multiplying trip generation rates by average trip lengths to arrive at vehicle miles of travel (VMT) generated by developed properties. On its face, VMT is a better measure of local road use than is trip ends. However, the practical problems of estimating average trip lengths for a multitude of land uses, and breaking out travel on city streets, might be so great as to preclude this refinement. The City of Lake Oswego, in reviewing their potential fee, proposed to use VMT in setting their rates. However, Lake Oswego has a substantial amount of information available on VMT's originating from the implementation of their transportation SDC's. Tigard does not have that information available.

The fee used by the City of Wilsonville considers three separate scales: intensity of trip generation, magnitude of the development measured by gross square feet of developed area, and trucks per day serving the development. Points are assigned for each of the three categories to help

determine the fee amount. However, Wilsonville arbitrarily set the fees at 50% residential uses and 50% businesses and it is not clear just how the scales affected the establishment of the rates.

- **We did not ask the Grocery Representative as to why they are not protesting and suing other cities that already have the Street Maintenance Fee, or are proposing the fee.**

Is there a legal basis for the “implied threat” from the grocers group? If there is, why haven’t they challenged the fees in other cities?

Response:

They have challenged the establishment of the fees in Portland and Eugene. They have not gone after cities that have already established the fees, but are trying to prevent other cities from following suit.

- **I thought that we had received a determination from the City Attorney as to the status of the fee as a fee and not a tax. Is this correct? If not, we need to obtain a determination.**

I think a more detailed discussion of the legal difference between a tax and a fee are in order since there was an implied threat that the proposed fee, if adopted, would be challenged in court.

Response:

The City Attorney has determined that the key is how the fee is structured. It could be structured as a fee. It is important that fee not be construed as a property tax, which would be subject to the limitations of the property tax. The City Attorney will discuss this further with you at the meeting on May 13, 2003.

- **Can we set a time limit on the Fee, say five years, or even three years, at which time we would need to re-evaluate the need and/or adjust the amount? This would give us a lift over the next few years and give the State time to get itself together.**

Gus mentioned at the meeting that we can look at this fee and see if we need to raise it annually. When Council talked about this, we talked about a set fee and then a sunset clause. Where did the part about raising it annually come in?

Response:

Council certainly has the authority to set a time limit on the fee, or a sunset clause. In previous discussions with the Council, Staff indicated that based upon the experiences of other cities like Tualatin, Wilsonville and Ashland, that the fee would be ongoing. The maintenance backlog is over \$4 million dollars. It would not be practical or advisable to establish fees that bring in that much revenue. The City can address the backlog by setting up a long-term maintenance program to catch up on the backlog and continue with the maintenance needed. The \$800,000 for street maintenance will be able to do just that. Staff recommends that the fee and the maintenance needs be reviewed periodically and adjusted as needed. Adjustments could be up or down depending on

the level of revenue received and maintenance needs foreseen for the coming years. The intent of the Street Maintenance Fee is to establish a stable source of revenue for maintenance. Setting a sunset clause would be contrary to that.

Staff indicated that the City of Tualatin began their fee with an intent of reviewing in later years for potential increases. Until just recently, the Tualatin fee had not been raised since inception in the 1980's, and the fee was only increased in order to cover sidewalk repairs citywide.

If Council desires, the proposed fee could be initiated with a set review period. Prior to the end of the review period, Staff could update the Council as to how the program is working. At that time, Council could decide whether or not to continue with the fee.

- **Are we positive this will not end up in a court battle? I want a yes or no on this.**

Response:

No. We believe it could very well end up in a court battle.

- **Why is the fee so heavily weighted on the businesses when the people who are going to benefit are the people in the neighborhoods who will have better access to getting around and also having their sidewalks and rights-of-way maintained? Can it be renegotiated? I think we need business on our side in order to do this fee. We have done virtually no public relations on it other than a few presentations.**

Should we look for more balance between residential and business? What logical formula could we devise that would throw more burden (just a little) on residential units? Perhaps we should consider this.

Response:

The reason it appears that businesses carry more of the burden is the fact that their trip generation is larger by proportion than the single family and multi-family uses in Tigard. The proposed methodology makes a direct correlation between the percentage of overall trips generated to the percentage of the overall fee that is paid. For reference, please review the tables provided in the March 5, 2002 staff report entitled, "Street Maintenance Fee Study Report". For instance, Appendix B-1 is the table that covers the "street maintenance" component of the fee. The 8th column over is entitled "% of Total Trips". This column indicates the percentage of trips each use contributes toward the total number of trips per year (shown in the 7th column, entitled "Trips/Year, 260 days"). So, the single family detached use in Tigard generates approximately 16.5% of the overall total trips per year. Multi-family uses generate approximately 7.0%. Together, the residential uses in Tigard make up 23.5% of the overall annual trips. The remainder of the total trips is made up by the non-residential, or commercial, uses.

Next, it is important to look at the 10th column over, entitled "% of Total Cost". For each use listed in the table, the percentage of overall cost should correlate closely with the percentage of trips. For the non-residential groups, it is important to compare the subtotals line for each group. The

percentages match because Staff believed that the amount each use should pay ought to be proportionate to the amount of trips each use generates.

In light of the argument from the business community that residential uses should carry more of the burden, Staff has prepared an option that would result in the residential uses carrying 50% of the burden, and the non-residential uses carrying the other 50%. The result of this “50-50 split” is as follows

Land Use Category	Monthly rate as currently proposed	Monthly rate - 50-50 split
Single Family (Detached)	\$2.54	\$4.51
Multi-Family	\$1.76	\$3.12
Non-residential Group 1 (0-20 trips/unit/day)	\$2.08	\$1.45
Non-residential Group 2 (< 20 - 100 trips/unit/day)	\$11.10	\$7.73
Non-residential Group 3 (<100 - 400 trips/unit/day)	\$53.73	\$37.20
Non-residential Group 4 (Special Category)	\$0.72	\$0.55

It is important to note that the sidewalk maintenance and the rights-of-way maintenance are options at this time. The City is not currently providing that service. In addition, the scope for each is limited to collectors and arterials only. The street maintenance and street light and traffic signal maintenance are ongoing needs that are currently addressed inadequately by the Gas Tax Fund.

- **I would like more specific and detailed information about the condition of the 140 miles of Tigard streets. Where are the maintenance needs and how was the maintenance backlog calculated?**

Response:

The City has a Pavement Management System that rated the streets within the City and determined the maintenance requirements based on the ratings. The streets were last rated in 1999. At that time, many streets required slurry seals. Because of the inability to comprehensively address the maintenance requirements over the past few years, we believe many of these streets now need at least a thin overlay (1 inch or so), and some possibly a regular overlay (2 inches or more). A few of the streets now need reconstruction at much higher cost. The maintenance backlog is calculated on the maintenance requirements at this time using our current costs for asphaltic concrete installed in-place.

- **Why is a maintenance fee better than a maintenance bond measure?**

Response:

A fee can be implemented by Council directly without going through a voting process. An option could be a maintenance bond measure to address the backlog over a two to three year period. Council can always choose to place this issue on a ballot for voter consideration. However, the streets still need maintenance after that. The SMF provides a stable source of revenue to establish that continuing program. A bond issue would be subject to arbitrage requirements with funds typically having to be expended over a 2-3 year period.

- **How are we paying for street light, and traffic signal maintenance now? If this money were freed up, what would we use it for?**

Response:

Currently, street light and traffic signal maintenance costs are funded totally by the Gas Tax Fund. The gas tax revenues are not restricted to maintenance, but can be used for a wide variety of needed street improvements. However, these funds have been used primarily for maintenance because of the large maintenance backlog and the inadequacy of the current gas tax rate to address anything beyond that. The proposed Street Maintenance Fee would supplement the gas tax and would be used in the maintenance of the street system. This would allow use of some gas tax revenues to address reconstruction, installation of crucial pedestrian connections, and other street improvement needs. In addition, a portion of the gas tax revenues can be used to repay loans, or to issue revenue bonds, for major street improvements. This option becomes available and can be considered if the Street Maintenance Fee provides that supplemental source of funds for maintenance.

- **What about sidewalk maintenance? In the past, I thought that adjacent property owners were responsible for maintaining their sidewalks. If a street tree heaves a sidewalk is it not the adjacent homeowner's responsibility?**

Response:

Tigard's development code currently holds the property owner responsible for the sidewalks that abut their property. Therefore, if a street tree heaves the sidewalk to a point where it is considered a tripping hazard, the property owner would be responsible for repairing the sidewalk. This has never been a very comfortable standard for Staff to enforce. Why? The property owner did not have a choice about the placement of the street tree. They have very little control over what happens with the sidewalk because of that tree. The primary concern was with regard to sidewalks along collector roadways where properties back up to them. For instance, the subdivisions along Durham Road with lots that back up to the street is a good example. Property owners do not regularly maintain street frontage behind their property. It is often "out of sight, out of mind". So, when the task force began development of the proposed fee, the thought was to include an option for the City to take over maintenance of the sidewalks along collectors to alleviate the burden on property owners.

- **I would also like some information about landscape maintenance of arterial rights-of-way. I understand that this has been a long festering issue on Durham Road but where else does it occur in the City? How would the City propose that it be maintained if the City takes it over? Are there other options? Could the City assist the owners without assuming complete responsibility?**

Response:

This issue is similar in nature to the sidewalk issue. This component would include maintenance of rights-of-way of collector streets where properties back up to the street and do not take vehicular access from the street. Trees, shrubs, grass and weeds will tend to go un-maintained and become a noxious vegetation issue. Therefore, the Task Force also included this component as an option for the Council to consider. 135th Avenue is another street similar to Durham Road.

- **Please address Gene McAdams' distinction between an Ordinance and a Resolution.**

The establishment of the fee itself would be by ordinance. The establishment of the rates would be by resolution. Fee rates are currently set by resolution because they periodically need adjustment. It would be awkward to set the rates by ordinance and have to deal with an ordinance every time a fee rate needs to be changed.

Response to an item of information provided in the testimony by the Oregon Grocery Association.

One of the points raised by the Oregon Grocery Association at their presentation on April 22nd concerned the ITE studies performed for supermarkets. The OGA representative stated that only two studies were done for supermarkets. In fact, the ITE Trip Generation Manual lists almost 40 studies performed over a period of years. Those studies were done on various days of the week. A few of the studies were performed for example on AM traffic on a Sunday, for example. However, the aggregate total is almost 40 studies covering a typical week period for supermarkets. The aim was to come up with an average trip generation rate for supermarkets.

Because of the way we have established the categories, it would be difficult for a land use to jump from one category to another. Performing traffic studies for individual businesses would probably revise a few of the trip numbers, but most likely would not result in numbers that would jump a land use from one category to another. For example, whether a supermarket generates 80 trips per 1,000 square feet, or 60 trips per 1,000 square feet would not move them out of the Group 2 category (20< - 100 trips per 1,000 square feet).

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CITY OF TIGARD

Engineering Department

Shaping A Better Community

MEMORANDUM

CITY OF TIGARD

13125 SW Hall Blvd.
Tigard, OR 97223
Phone 503-639-4171
Fax: 503-624-0752

TO: Mayor and City Councilors
Bill Monahan, City Manager

FROM: Gus Duenas
City Engineer

DATE: May 8, 2003

SUBJECT: Additional Information Regarding the Street Maintenance Fee

This is to transmit additional information in response to Council questions regarding the Street Maintenance Fee.

Message from Richard Gray, Strategic Projects Manager and Street Maintenance and Improvement Fee Administrator for the City of Portland

This is further information on the question regarding the Oregon Grocery Association's activities opposing the fee in other cities. I have been corresponding with Richard Gray of the City of Portland, answering some of his specific questions regarding the fee. I suggested that he review the documents we have posted on the City's website regarding the fee. The attached message is his response to the comments made in the letter from Karianne Cole of Albertson's regarding their opposition to the fee. As Mr. Gray explained, OGA filed a suit, but it was never adjudicated. The primary reason for the Portland City Council's repeal of the ordinance is because it was referred to the voters, not because of the suit.

Institute of Transportation Engineers trip generation information regarding Supermarkets

The database from ITE includes studies from the 1960s to the 1990s throughout the United States. Attached are the various studies during weekdays and weekends from which the trip generation rates are derived. For us, the ITE trip generation rates provide a means for establishing the groups and for distributing the payment of the fees among the non-residential uses. The supermarkets were initially at 111.51 average trip rate per 1,000 square feet of gross floor area. After we applied the passby trip adjustments, the trip rate dropped to 78.06 trips per 1,000 square feet of gross floor area. We also

consolidated the groups into four non-residential groups instead of five. The attached spreadsheet shows the categories and the rates for each specific land use. Supermarkets fall in non-residential Group 2, which is from 20 to less than 100 trips. All uses in Group 2 would pay \$11.10 per 1,000 square feet of gross floor area per month. It seems unlikely that any local studies would drop the trip rate for supermarkets below 20. If anything, it may show trip rates greater than 100, which would place them in a higher paying group.

Information on the 50-50 split alternative (50% by residential uses and 50% by non-residential uses)

The memorandum that I sent dated May 6, 2003 responding to the Council questions provided a table that was incomplete. The following shows the full information that should have been provided in that memorandum.

Land Use Category	Monthly rate as currently proposed	Monthly rate - 50-50 split
Single Family (Detached)	\$2.54	\$4.51
Multi-Family	\$1.76	\$3.12
Non-residential Group 1 (0-20 trips/unit/day)	\$2.08	\$1.45
Non-residential Group 2 (< 20 - 100 trips/unit/day)	\$11.10	\$7.73
Non-residential Group 3 (<100 - 400 trips/unit/day)	\$53.73	\$37.20
Non-residential Group 4 (Special Category)	\$0.72	\$0.55

The Oregon Grocers Association provided some graphs which showed trip lengths for various uses. The trip lengths according to those graphs are longer for residential users. I do not know where they got that information since the ITE manual deals with trip generation rates and does not delve into trip lengths. Attached is a copy of that graph.

Factoring in trip lengths may provide a basis for increasing the residential participation without resorting to an arbitrary 50-50 split. Without determining how that information should be factored into the overall calculations, it would be difficult to determine how the percentages would change. However, it does look like a relatively simple and reasonable way to increase the residential contribution using average trip lengths, assuming that the trip length information can be derived from a nationally recognized source.

Attachments

I:\Eng\Gus\Memorandums\Additional Information Regarding the SMF.doc

City of Tigard

Street Maintenance Fee

What is a Street Maintenance Fee?

A Street Maintenance Fee (sometimes known as a Transportation Utility Fee, Road User Fee, or Street Utility Fee) is a monthly fee based on use of the transportation system and is collected from residences and businesses within a city's corporate limits. The fee is based on the number of trips a particular land use generates and is typically collected through the city's regular monthly sewer and water bill. It is designated for use in the maintenance and repair of the city's transportation system. Users of the road system share the costs of the corrective and preventative maintenance needed to keep the street system operating at an adequate level.

What does a Street Maintenance Fee do?

It protects a city's investment in the street infrastructure by providing revenue to maintain and repair the city streets. It allows the cost of the local road system to be shared among its users.

Why is there a need for timely maintenance of city streets?

Through timely maintenance of streets, cities are better able to provide safe roads on which people may travel. Studies have shown that pavement condition worsens at an increasing rate as the pavement gets older. Restoration of pavement near the end of its service life will typically cost 4 to 5 times more than rejuvenation performed in a timely manner.

Why is the Street Maintenance Fee being considered in Tigard?

The City of Tigard has approximately 140 miles of paved streets within the street system. Much of the street infrastructure is old and was not designed for heavy trucks and buses, which accelerate deterioration and greatly increase maintenance requirements. The City of Tigard's Pavement Management System reports a preventative and corrective pavement maintenance backlog of approximately \$2 million dollars as of 1999. Since then, the street system has deteriorated further and needs to be addressed as part of a long-term program of corrective and preventative maintenance. The vast majority of the arterial, collector and neighborhood streets now require either pavement overlay or more costly reconstruction.

The only funding source for maintenance of the City's street system is the State Gas Tax. The revenue from the gas tax pays for street maintenance and the energy and maintenance costs for the street lights and traffic signal systems Citywide. The gas tax has not been increased in a decade and an increase does not appear likely in the foreseeable future. The revenue from the gas tax remains relatively constant at \$1.6 million dollars each year, but operating costs continue to rise. As these costs increase, the amount available from the gas tax revenues for pavement overlay and reconstruction continues to decrease. Without a significant increase, the gas tax can no longer be considered as a viable source of funding to fully address the City's street maintenance needs. It needs to be supplemented by additional funding sources for the

pavement overlays, pavement treatments and reconstruction work that are necessary to keep the street system functioning satisfactorily.

A Street Maintenance Fee is an alternative source of funding that can be implemented to help protect the City's investment in the street infrastructure through timely maintenance and repair. The implementation of this fee was recommended to the City Council by the City's Transportation Financing Strategies Task Force, a citizen task force formed to evaluate and recommend to Council feasible alternative funding sources for street maintenance and street expansion needs.

What costs would the Street Maintenance Fee cover and how much total revenue would be generated?

The following are the maintenance elements included in the study together with the target amounts to be funded through the Street Maintenance Fee:

- **Street Maintenance - \$800,000.** This amount assumes that most of the funds collected would be used annually for street maintenance purposes with a small reserve set aside for future reconstruction of certain streets as that reconstruction becomes necessary.
- **Rights-of-Way Maintenance - \$270,000**
- **Sidewalk Maintenance - \$90,000**
- **Street Light and Traffic Signal System Maintenance -\$445,000**
- **Total for all four maintenance elements: \$1,605,000**

What is the scope of work for each of the maintenance elements?

- **Street Maintenance** – Preventative and Corrective Maintenance of all City streets. This includes routine work such as pothole patching, crack sealing, street storm drainage maintenance, and digouts, as well as the more costly pavement overlays, slurry seals, and reconstruction of the street structural section. The City's street crews perform the routine maintenance work year-round. The long-term program for annual maintenance of the City streets applies pavement overlays, thin-lift overlays, and slurry seals combined with street reconstruction as needed. This program addresses arterials, collectors, neighborhood routes, and local streets as four separate categories all requiring appropriate levels of maintenance. The arterial and collector streets handle higher volumes of traffic and typically require more attention. The neighborhood routes and local streets handle lesser volumes and would be expected to deteriorate at a slower rate. The revenue to be derived from the Street Maintenance Fee would be primarily directed to implementation of the long-term maintenance program, and preparatory work for those projects as performed by the City's street crews.
- **Rights-of-Way Maintenance** – Maintenance of rights-of-way between the sidewalk and the right-of-way line on collector streets with limited direct access from adjacent subdivisions.

- **Sidewalk Maintenance** – Maintenance of sidewalk on collector streets Citywide. This would involve replacement of sidewalk panels that pose a tripping hazard and routine maintenance of the sidewalks annually.
- **Street Light and Signal System Maintenance** – Maintenance and power costs of all streetlights Citywide. Maintenance and power costs on all traffic signal systems and crosswalk lighting systems under City jurisdiction.

How is the Street Maintenance Fee for Tigard determined?

An inventory of all the existing uses on occupied parcels in the City provided the starting point for calculating the proposed Street Maintenance Fee rates for the City of Tigard. The Institute of Transportation Engineers (ITE) trip generation rates were then used to determine trip generation values for each use. Residential and non-residential groups were established to help generate a maintenance fee rate to be applied to each group. The trip generation rates for non-residential uses most commonly are “number of trips per thousand gross square feet of building per day.” Other assignments are for those uses that do not depend upon the size of the building, such as Gasoline/Service stations, which are assigned trips per vehicular fueling positions per day. Adjustments were made to the trip generation rates to account for pass-by trips. Pass-by trips are intermediate stops on the way from an origin to a primary trip destination without a route diversion. The groupings take into account the net trip generation rates after factoring in pass-by trip information. The final grouping includes two residential groups and four non-residential groups summarized as follows:

- Single Family (Detached)
- Multi-family
- Group 1 0 to 20 trips per unit
- Group 2 Greater than 20 to 100 trips per unit
- Group 3 Greater than 100 up to 400 trips per unit
- Group 4 Special group for parks, cemeteries and golf courses.

What are the rates that each of the groups would be expected to pay?

Summary of Fees for All Maintenance Elements

Land Use Category	Street Maint.	ROW Maint.	Sidewalk Maint.	Street Light and Signal System Maint.	Total Monthly Charge per Unit
Single Family	\$1.2639	\$0.4266	\$0.1422	\$0.7031	\$2.5357 (per house)
Multi-Family	\$0.8756	\$0.2955	\$0.0985	\$0.4871	\$1.7567 (per unit)
Group 1	\$1.0341	\$0.3490	\$0.1163	\$0.5752	\$2.0746
Group 2	\$5.5315	\$1.8669	\$0.6223	\$3.0769	\$11.0976
Group 3	\$26.7783	\$9.0377	\$3.0126	\$14.8954	\$53.7239
Group 4	\$0.3570	\$0.1205	\$0.0402	\$0.1986	\$0.7162

What amounts would the citizens and businesses expect to see on their utility bills?

The proposed residential rates for single family houses and multi-family dwellings are \$2.54 and \$1.76 per month respectively. The rates for the businesses would depend on the group that each business falls into and the size of the business. Specific information can be obtained upon request from the City of Tigard.

How would a Street Maintenance Fee be implemented?

City Council has the authority to establish the Street Maintenance Fee and initiate that fee by Council action. The establishment of the fee would be by ordinance and the rates to be charged would be by Council resolution.

How soon could the Fee be established and when would amounts appear on the utility bills?

City Council has decided to extend the public process for the Street Maintenance Fee. A public meeting has been scheduled for November 14, 2002 to discuss the fee with citizens and businesses. Council discussion of the results of the meeting is scheduled for the Council meeting on December 17, 2002. Any action on implementation of the fee would most likely be scheduled for early 2003. If Council does approve implementation, the effective date for the fee would be set several months after Council action. This would give the City of Tigard sufficient time to set up the fund and do the necessary work to ensure that the amounts can be incorporated on the utility bills without a glitch in the billing process.

How can I calculate my monthly payment?

The monthly payment for each land use category is calculated by taking the rate established multiplied by the number of units. A single family residence and each unit in a multi-family building would pay the monthly rate shown in the fee table. For a single family residence, the rate would be \$2.54 per month, and for each unit in a multi-family structure, the rate would be \$1.76 per month.

A land use category that falls into the non-residential groups would compute the monthly payment by multiplying the group rate that they fall into by the number of units for their particular use. Some examples are shown as follows:

- Example 1: A medical-dental office building falls into non-residential group 2. The unit of measure is 1,000 square feet of gross floor area. Assuming the office building has 10,000 square feet of gross floor area, the multiplier would be $10,000/1,000 = 10$. The group rate of \$11.10 multiplied by 10 equals \$111.00 per month.
- Example 2: A movie theater falls into non-residential group 3. If the theater has 6 screens, the monthly rate for that theater would be the group rate of \$53.73 per month multiplied by the 6 screens equals \$322.38 per month.
- Example 3: A 24-hour convenience market falls into non-residential group 3. If the market has 5,000 square feet of gross floor area, the monthly rate for that market would be the

group rate of \$53.73 per month multiplied by 5 (5,000/1,000) to produce a monthly bill of \$268.65.

Contact Person:

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Email: gus@ci.tigard.or.us

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City of Tigard Updated Street Maintenance Backlog*

Maintenance Category	Total Cost
Street Reconstruction	\$300,000
Pavement Overlay	\$4,200,000
TOTAL COSTS	\$4,500,000

*Updated May 2003 based on pavement overlays on all streets identified in 1999 as requiring slurry seals.

I:\Eng\Gus\Street Maintenance Fee\Updated Street Maintenance Backlog – Appendix A-1.doc

Updated Appendix A-1 (Revised May 2003)

AGENDA ITEM # _____
FOR AGENDA OF May 27, 2003

CITY OF TIGARD, OREGON
COUNCIL AGENDA ITEM SUMMARY

ISSUE/AGENDA TITLE Update on Greenspaces Program by Metro President David Bragdon

PREPARED BY: Cathy Wheatley/Cary Stacey (Metro) DEPT HEAD OK _____ CITY MGR OK _____

ISSUE BEFORE THE COUNCIL

Hear an update by Metro President David Bragdon on the status and accomplishments of the Metro Greenspaces Program, with a focus on recent local acquisitions.

STAFF RECOMMENDATION

No action requested – information only.

INFORMATION SUMMARY

Metro Council President David Bragdon is visiting Metro jurisdictions to give an update on the status and accomplishments of the Metro Greenspaces Program, with a focus on recent local acquisitions.

OTHER ALTERNATIVES CONSIDERED

N/A

VISION TASK FORCE GOAL AND ACTION COMMITTEE STRATEGY

Urban & Public Services – Goal 4 – Parks & Greenways: Open space and greenway areas are preserved and protected.

ATTACHMENT LIST

None

FISCAL NOTES

N/A

AGENDA ITEM # _____
FOR AGENDA OF May 27, 2003

CITY OF TIGARD, OREGON
COUNCIL AGENDA ITEM SUMMARY

ISSUE/AGENDA TITLE Fanno Creek Park Extension Master Plan

PREPARED BY: Dan Plaza, 2590 DEPT HEAD OK _____ CITY MGR OK _____

ISSUE BEFORE THE COUNCIL

Council is being asked to consider adopting the Fanno Creek Park Extension Master Plan

STAFF RECOMMENDATION

Staff recommends that Council adopt the Fanno Creek Park Extension Master Plan.

INFORMATION SUMMARY

In May of 2002 the City of Tigard voters approved a \$13 million bond measure to be used for the construction of a new library. Based upon this action the City sought proposals from landscape architectural/park planning firms for the development of a Park Master Plan for the Fanno Creek Park extension. The City retained Murase Associates to do the Fanno Creek Park Extension Master Plan. The team consisted of Jonathan Beaver-Landscape Architect for Murase Associates, Dan Jenkins-Project Manager for Murase Associates, Ronald Rathburn, Ph.D. from Engineering and Environmental Solutions, and Matthew J. Dolan, P.E. from kpff Consulting Engineers. The entire site is 14.7 acres with the new library being built on 5 acres. The remaining 9.7 acres are to be developed as an extension of Fanno Creek Park, which is a linear park, dedicated to the passive use of green space and trails.

A citywide community meeting was held on March 5, 2002 to ascertain public input on how they would like to see this site developed and landscaped. In addition to the March 5 meeting two other public meetings were conducted. They were held on February 26 and April 3.

Based on public input, the master plan project consisted of, but was not limited to:

- Development of natural areas
- Planting/restoration/preservation/enhancement
- Exterior landscaping
- Outdoor community gathering places
- Trails - both hard and soft surface
- Trail alignment to Fanno Creek Trail - on/off-site
- Vista areas to include benches/tables
- Signing/labeling flora and fauna
- Designing for wildlife habitat corridors and endangered species, if any
- Blending/connecting to Fanno Creek Park behind City Hall

The final draft is a direct result of the April 3 meeting where audience participation focused on trail options, bridge locations, special gathering areas, storm water gardens, stream enhancement opportunities, flora and fauna, and educational and recreational opportunities. Important recommendations were made pertaining to less development in the northern portion of the property and fewer secondary, soft trails. It was agreed that there should only be a few picnic tables at the site.

The Library Building Design Team reviewed and approved the plan. The Planning Commission, on April 21, voted unanimously to support the plan and they recommend that Council approve and adopt the plan as presented.

OTHER ALTERNATIVES

Not approve the master plan.

VISION TASK FORCE GOAL AND ACTION COMMITTEE STRATEGY

Urban and Public Services #1, "...providing opportunities for the Tigard Community."
Council Goal #2, "Acquire and develop parkland"

ATTACHMENT LIST

Attachment 1 – Master Plan (in two parts)

FISCAL NOTES

The cost for the master plan services is \$26,397. Funds for this project are in the Parks SDC Fund-Park Development-\$100K. The City has applied for a grant to construct the Fanno Creek Trail.

FANNO CREEK PARK
MASTER PLAN SUMMARY
City of Tigard



Murase Associates
May 2003



Introduction

The Fanno Creek Park Master Plan is an analysis of one section of the Fanno Creek Greenway Trail system just east of Hall Boulevard and directly abutting property to the south planned for the development of a new Library for the City of Tigard. The site is 9.7 acres of gently sloping land with a mix of open pasture, scrub/shrub and large trees. Fanno Creek divides the site into three distinct sections: a northern portion with a backwater slough from Fanno Creek; an eastern section of predominantly wet, forested areas; and a southern portion of large trees and open space directly adjacent to the proposed Library site.

The Fanno Creek Greenway Trail, itself, has been in planning and implementation for years and extends in sections over 15 miles from the Tualatin River to Willamette Park in Portland. Over half of the trail has been completed, utilizing a mixture of on-street and off-street routing. The Fanno Creek Park Master Plan helps fill in a missing link in this greenway trail, extending the park beyond Hall Boulevard toward its destination at the Tualatin.

Through a joint effort of the team of Murase Associates, KPFF Consulting Engineers, PBS Environmental Engineers; City staff; and interested citizens, this Master Plan has been developed to guide the long term development and protection that will occur in this area. Facilities and improvements identified in the Master Plan will help integrate the park into the larger Fanno Creek trail system as well as serve to connect this valuable green space with adjacent public facilities and adjacent properties.

A Master Plan also serves as a means to better understand the complexities of this unique place and to guide future decision-making. It prioritizes development opportunities and protected areas within the study area. The resultant recommendations contained in this report will significantly expand the variety and quality of recreational opportunities within the Tigard community as well as protect valuable land for people and wildlife. These enhancements will improve the livability of the community and attractiveness to the area's residents. This Master Plan report describes the public and planning process that was undertaken by the design team and results in recommendations for future work on the site.



meadow near future library



northern meadow



Fanno Creek



backwater pond

Project Goals

Prior to the development of a master plan team for the Fanno Creek Park property, two public meetings were held to establish some initial goals and program elements for the proposed Library and adjacent park property. The two public meetings were on March 5, 2002 and October 16, 2002. The meetings resulted in a number of suggestions about the type and quality of spaces and elements on the site, including:

- Provide signs for the park
- Provide access to trail from library parking lot
- Keep open space as large as possible
- Provide a big buffer along Fanno Creek
- Purchase more land east of the site for open space
- Provide a series of pathways developed for education/recreation
- Have family-oriented use in open space
- Provide environmental education for professionals
- Natural environment is special
- Maintain wildlife habitat corridors
- Look at endangered species concerns
- Provide outdoor auditorium band shell
- Provide benches and picnic tables
- Provide meditation maze
- Look at existing house as cultural center

These ideas were the basis of further discussions with the City of Tigard and interested citizens during the first and second public meetings and resulted in a series of goals for the park. The goals serve as a benchmark and reminder of priorities as the master plan process moves forward.

The goals are:

- Develop a trail system to link the community and connect to Fanno Creek that provides accessibility for all people of all ages and physical abilities.
- Provide a variety of educational opportunities about the natural environment and local history.
- Preserve, enhance and restore the natural resources to promote wildlife habitat and improve water quality.
- Create uses and activities to strengthen the sense of community and compliment the library
- Design a safe and secure park



meadow



pond



pond

Site Analysis



Site Analysis *continued*

The site is divided into three distinct areas with Hall Boulevard creating an edge to the west of the property:

The northern portion of the site contains a backwater slough that extends from Fanno Creek to the north and continues under Hall Boulevard to create a pond near City Hall and the existing Library. There is a small pond surrounded by a mature stand of native oaks in the center of this northern area. To the west of the pond is an open meadow of mixed grasses that appears managed by recent grazing or mowing. The remaining area is a mixture of trees and scrub/shrub. The property to the east of this area is in private ownership and remains undeveloped. The adjacent site to the north is leased by the school district as a parking lot for school buses and has a significant visual impact on the site. The existing Fanno Creek Trail ends on the west side of Hall Boulevard, presenting a formidable barrier for the continuation of the trail. With an average of 16,000 vehicles per day on this roadway, the design of this crossing is vital to creating a safe connection across the roadway.

The eastern portion of the site is primarily a mixture of mature deciduous and evergreen trees. Although no wetlands have been delineated in this area, the ground surface is heavily inundated with water from Fanno Creek's consistent flooding. This area is separated from the western side of the site by Fanno Creek and is not readily accessible from the Hall Boulevard side of the park.

The southwest corner of the site sits adjacent to the site of the proposed new library building and is dominated by a large bowl-shaped meadow. A mixture of scrub/shrub exists along the river and a small wetland has been delineated to the south.

Clean Water Services (CWS) has established a 50-foot setback around Fanno Creek and the adjacent wetland. Except for creek crossings and small trails, development within this zone is prohibited. Trails and crossings that impact this area will be subject to planting mitigation on a 1:1 basis in addition to the 50-foot buffer. Buffer plantings will be a mixture of native vegetation, subject to CWS guidelines. Under a separate agreement with the City, a condition of approval for the new library will require planting within this buffer along the library side of the creek.

The one hundred-year floodplain occupies a significant portion of the study area, with the new library planned right to its edge on the southern side. The presence of the floodplain will limit the amount of development that can occur on the site. Earthwork activity within the floodplain will need to be permitted to ensure that a decrease in the available flood area for the creek does not occur.



wetland



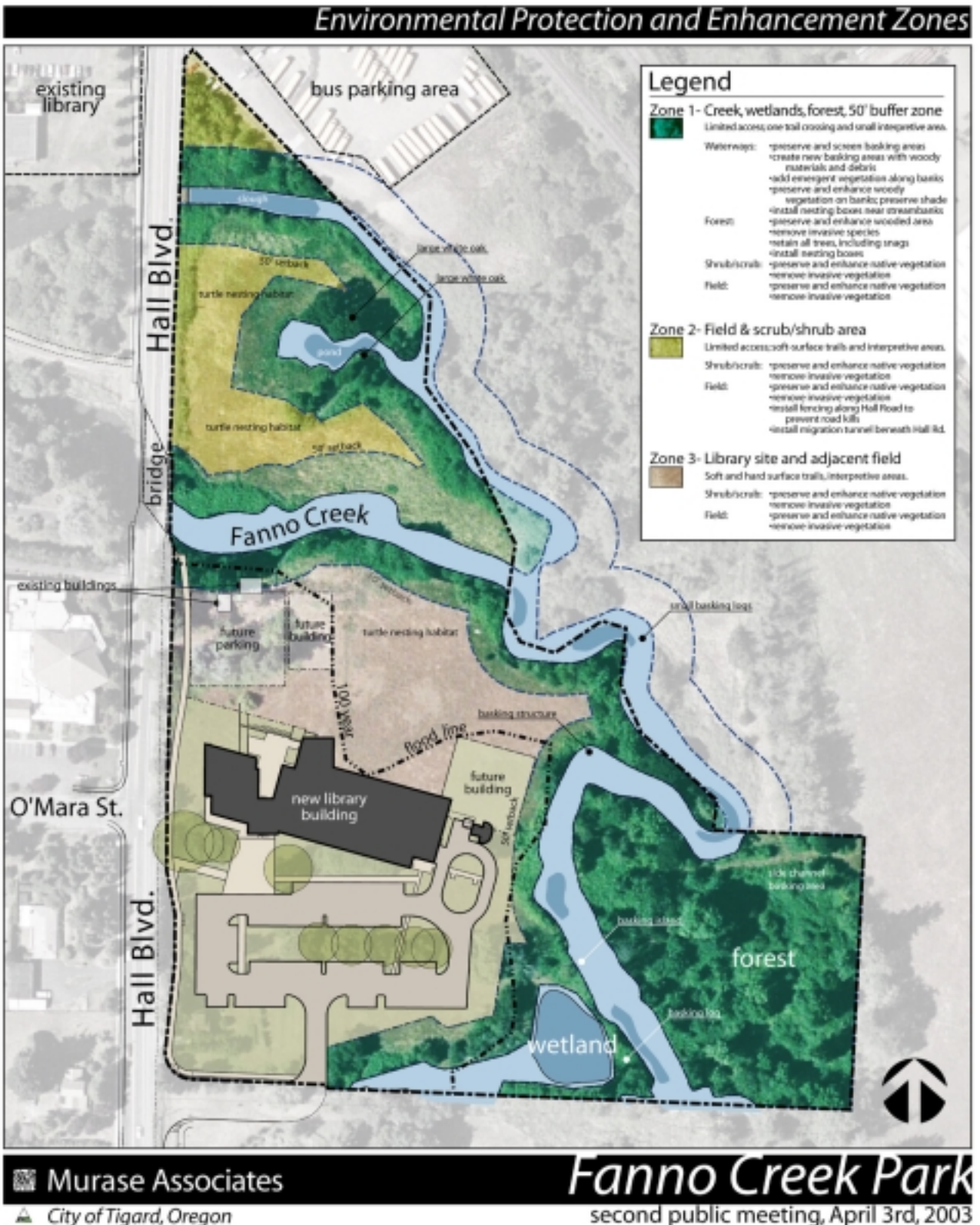
existing greenway trail

Site Analysis *continued*

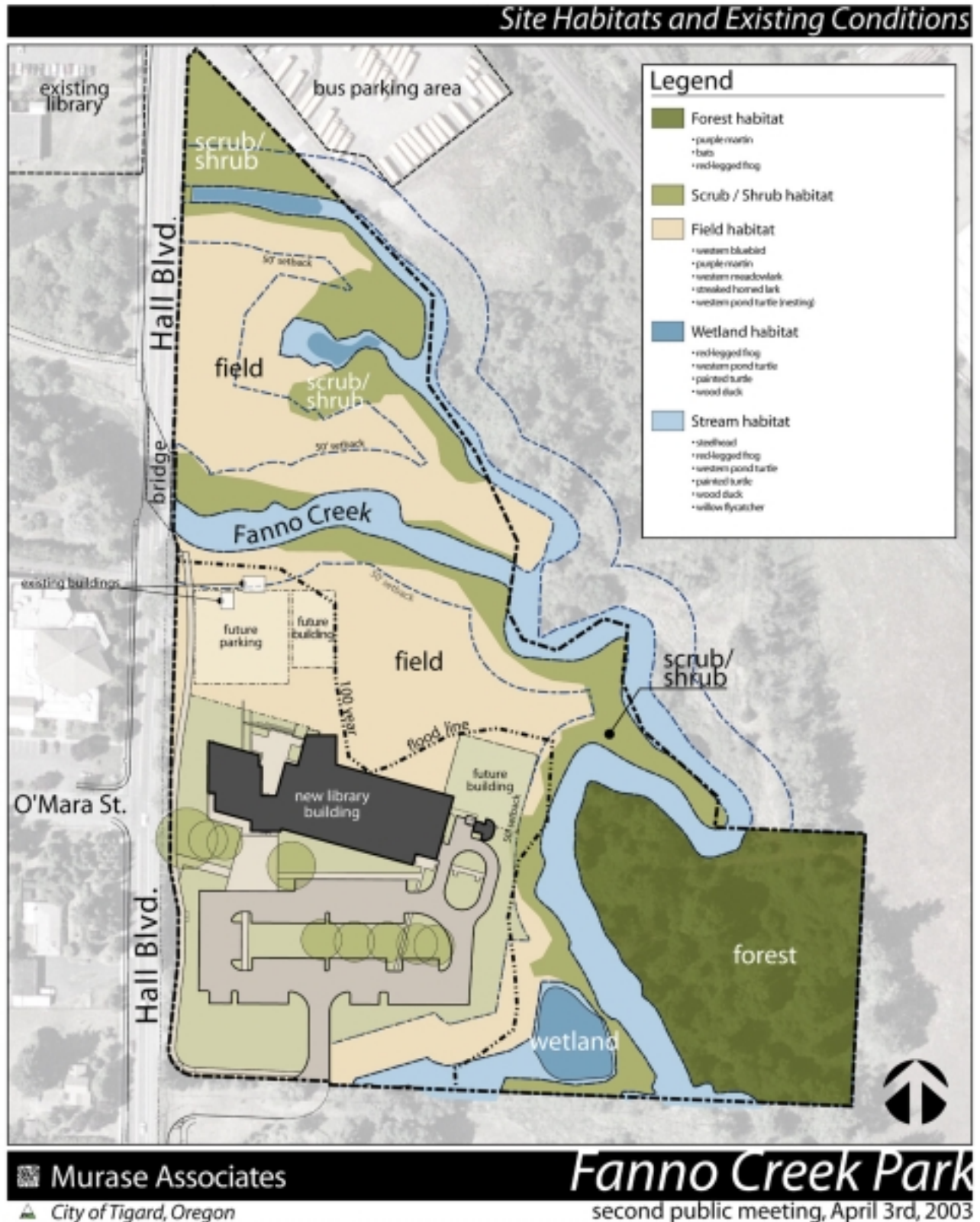
The site's natural areas offer significant habitat opportunities for this quickly urbanizing area. The following table provides an initial look at some general guidelines that helped guide conversations about the restoration work during the public process. This chart illustrates the general site areas, actions that could be taken to improve habitat, and the environmental benefits that can be expected from those actions:

Area	Action	Environmental Benefit
Stream	Stream bank restoration	
	Grade bank to shallower slope.	Reduces peak flows; reduces erosion; slows water, creating habitat for some fish, amphibians, and reptiles; increases in-stream habitat diversity
	Plant with native riparian plants such as willows, red-osier dogwood, alder, and cottonwood.	Increases habitat diversity; shades stream banks.
	Control Himalayan blackberry	Creates space for native plants, which serve as better habitat for wildlife.
	Widen vegetated zone adjacent to stream in some areas.	Increases habitat diversity and shade, reduces human disturbance to wildlife; creates travel corridor; serves as cover and shelter for wildlife; increases bank stability.
	Increase emergent vegetation within stream.	Creates habitat and forage for waterfowl; increases habitat diversity for aquatic invertebrates; traps sediments.
	Install nest boxes in trees adjacent to stream.	Creates reproductive sites for cavity-nesting birds such as wood ducks, hooded mergansers, bufflehead, and wood peckers.
Shrub/scrub area	Control Himalayan blackberry.	Creates space for native plants, which serve as better habitat for wildlife.
	Add large woody debris	Creates habitat for amphibians, reptiles, and small mammals; shelters developing plants; serves as a source of soil nutrients; traps sediments.
	Preserve snags	Creates habitat for bats and birds, especially cavity-nesters and large birds of prey.
Field	Plant native trees, shrubs, and herbs	Increases plant diversity; creates habitat for a variety of wildlife including songbirds, deer, and small mammals.
	Remove and control non-native pasture grasses.	Creates space for native plants, which serve as better habitat for wildlife; increases habitat diversity.
	Arrange plantings in clumped distribution with high vertical diversity.	Increases structural habitat diversity; creates a variety of breeding sites, cover types, and microclimates
	Limit mowing to distinct areas	Reduces physical disturbance to wildlife; increases plant and wildlife habitat diversity.
	Remove Scots broom	Creates space for native plants, which serve as better habitat for wildlife; increases habitat diversity.
Wetland	Remove purple loosestrife	Creates space for native plants, which serve as better habitat for wildlife; avoids widespread invasion.
	Shade banks by planting native trees or shrubs	Increases habitat diversity; creates cover and shelter from the elements.
	Add herbaceous vegetation in mudflats along water line	Increases habitat diversity; reduces erosion.
	Increase emergent vegetation within pond	Creates habitat and forage for waterfowl; increases habitat diversity for aquatic invertebrates; traps sediments.
Forest	Remove Himalayan blackberry	Creates space for native plants, which serve as better habitat for wildlife; avoids widespread invasion.
	Preserve snags and large woody debris	Creates habitat for bats and birds, especially cavity-nesters and large birds of prey.

Wildlife/Habitat Analysis



Wildlife/Habitat Analysis *continued*



Wildlife/Habitat Analysis *continued*

We have completed an assessment of sensitive areas at the Tigard Library Master Plan site. The assessment included (1) talking with Sue Bielke and other local biologists; (2) reviewing existing information on threatened, endangered, and sensitive species; and (3) visiting the site to determine the potential presence of listed or sensitive species or habitats. Setbacks and recommendations were based on the results of the assessment. This summarizes the species-specific recommendations provided on the following tables and only presents those relating to the trail location, buffers, or preserving specific habitats.

Setbacks/Buffers

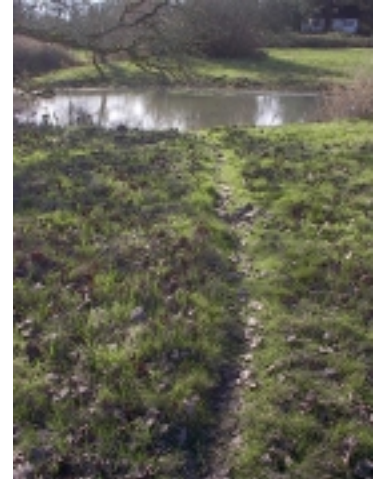
From a regulatory standpoint, there is no requirement for buffers other than the 50-foot buffer required by Clean Water Services, however, fish and wildlife species that would benefit from buffers currently inhabit or could potentially inhabit the Fanno Creek Park site. Some examples include the pond and painted turtles. Turtles, for example, can be easily frightened by human activity causing them to avoid using certain areas. Other species may or may not change their behavior due to human activity. Some species will clearly avoid areas just because certain habitat requirements are not met, which might be related to the presence of buffers. The greater the human presence and activity in an area, the fewer wildlife species will be found in that area.

Buffers can provide important benefits to species and habitats at the site, including reducing invasion by non-native plant species, reducing disturbance by human activity, and providing shade and large woody debris to the creek. The buffer requirements of Clean Water Services should be viewed as the minimally acceptable buffers along streams and wetlands. Larger buffers in these areas would enhance these habitats. To prevent possible adverse effects to habitat for steelhead - federally listed as threatened - existing trees within 100 feet of the creek should not be removed.

Recommendations

Although buffers are not required to protect certain species or habitats, the city may want to protect or buffer some areas to enhance fish and wildlife. The following recommendations provide optional measures the city could implement to enhance fish and wildlife habitat.

- Preserve the forested area east of creek and scrub-shrub area north of the open water area
- Preserve the wetland, open water, and backwater pond
- Keep trail away from basking areas (areas of large woody debris in the stream) and use plantings to screen basking areas from people
- Preserve field habitat for turtle nesting. The northern field provides the most suitable locations for turtle nesting based on connections with the backwater pond and open water area.



small animal trail at pond

Wildlife/Habitat Analysis *continued*

List of “sensitive species” that may be found on the site

“Sensitive species” are defined as any plant or animal appearing in *Rare Threatened and Endangered Plants and Animals of Oregon* (ONHP 2001).

This list includes species classified as follows:

- Federally threatened, endangered, proposed threatened or endangered, candidates for listing as threatened or endangered, or species of concern.
- On the Oregon Natural Heritage Program lists, and
- Listed critical, vulnerable, or peripheral or naturally rare under the ODFW threatened and endangered species program.

No recommendations have been provided for sensitive plant species, because no sensitive plants species have been confirmed to be present on the master plan site. The following table describes potential animal species that may be present within the project site, their habitat, and recommended action:

Animals

Scientific Name	Common Name	Status	Habitat type	Habitat Present in Project Area	Recommended Action
Amphibians					
<i>Bufo borealis</i>	Western toad	SV	Marshes, small lakes, dry forests, shrub thickets, streams	<ul style="list-style-type: none"> Wetland Scrub/shrub areas Fanno Creek 	<ul style="list-style-type: none"> Preserve the forest area east of creek and scrub-shrub area north of open water area
<i>Rana aurora aurora</i>	Red legged frog	SOC	Wooded areas near streams	<ul style="list-style-type: none"> Forest Wetland Slough Backwater pond Fanno Creek 	<ul style="list-style-type: none"> Preserve the forest area east of creek and scrub-shrub area north of open water area Add emergent vegetation to shoreline of wetland
<i>Rana pretiosa</i>	Oregon spotted frog	FC	Perennial ponds and slow-moving streams, usually herbaceous plant communities.	<ul style="list-style-type: none"> Wetland Slough Backwater pond 	<ul style="list-style-type: none"> Preserve wetland, open water, and backwater pond Plant emergent vegetation along margins of these water bodies
Reptiles					
<i>Chrysemys picta</i>	Painted turtle	SC	Marshes, slow rivers, ponds, and lakes. Basking habitat includes logs, branches, and emergent vegetation.	<ul style="list-style-type: none"> Fanno Creek Wetland Slough Backwater pond 	<ul style="list-style-type: none"> Keep trail away from identified instream basking areas Buffer basking areas with shrubs or other dense growth Add basking structures to open water areas Plant emergent vegetation in wetland and backwater pond Install fencing along road to prevent road kills on Hall Blvd Create migration tunnel under Hall Blvd.
<i>Emys marmorata marmorata</i> *	Western pond turtle	SOC, SC		<ul style="list-style-type: none"> Fanno Creek Wetland Fanno Creek side channel Fields 	<ul style="list-style-type: none"> Keep trail away from identified instream basking areas Buffer basking areas with shrubs or other dense growth Preserve field habitat as nesting area Improve field by planting native grasses and shrubs Add basking structures Plant emergent vegetation in wetland Acquire adjacent fields (tax lots 2S1010001200 and 2S102DA00500) and preserve as basking areas
<i>Contia tenuis</i>	Sharptail snake	SV	Moist coniferous or deciduous forest, grassy areas at forest edge, under rocks and LWD Peak activity Mar – June	<ul style="list-style-type: none"> Forest edges 	<ul style="list-style-type: none"> Preserve forest and provide buffer area around forest

Wildlife/Habitat Analysis *continued*

Birds					
<i>Aix sponsa</i>	Wood duck	None	Wooded areas next to water	<ul style="list-style-type: none"> o Fanno Creek o Backwater slough 	<ul style="list-style-type: none"> o Preserve woody vegetation along creek o Place nest boxes on trees overhanging creek and backwater pond
<i>Chordeiles minor</i>	Common nighthawk	SC	Forage everywhere		
<i>Empidonax traillii brewsteri</i>	Little willow flycatcher	SOC, SU	Willows at stream edges. Thickets at forest clearings, tall bushy vegetation near water	<ul style="list-style-type: none"> o Very limited areas along Fanno Creek o Sighted on property to south adjacent to wetland 	<ul style="list-style-type: none"> o Plant willows along edges of wetland
<i>Eremophila alpestris</i>	Streaked horned lark	FC, SC	Areas of little to no vegetation (agricultural land, pastures, grasslands)	<ul style="list-style-type: none"> o Field 	<ul style="list-style-type: none"> o Preserve field habitat
<i>Melanerpes formicivorus</i>	Acorn woodpecker	SOC	Large oaks, other broadleaves may be present	<ul style="list-style-type: none"> o None 	<ul style="list-style-type: none"> o None
<i>Progne subis</i>	Purple martin	SOC, SC	Cavities adjacent to open areas	<ul style="list-style-type: none"> o Forest contains many cavities, crevices, snags, and broken top trees for nesting o Fields for foraging 	<ul style="list-style-type: none"> o Preserve forest o Place nest boxes in forest
<i>Sialis mexicana</i>	Western bluebird	SV	Clearcuts with snags, farms, riparian woodland; need cavities	<ul style="list-style-type: none"> o Forest contains many cavities, crevices, snags, and broken top trees for nesting o Fields for foraging 	<ul style="list-style-type: none"> o Place nest boxes in forest and on posts in fields
<i>Sturnella neglecta</i>	Western meadowlark	SC	Grasslands, pastures, meadows, adapted to agriculture.	<ul style="list-style-type: none"> o Field 	<ul style="list-style-type: none"> o Preserve field habitat
Mammals					
<i>Lasiorycteris noctivagans</i>	Silver-haired bat	SOC, SU	Forested areas, hollow trees, bark	<ul style="list-style-type: none"> o In hollow trees and under bark in forest 	<ul style="list-style-type: none"> o Preserve forest
<i>Myotis thysanoides</i>	Fringed myotis	SOC, SV	Conifers, caves, crevices, buildings, forested riparian areas	<ul style="list-style-type: none"> o In crevices, forested wetland 	<ul style="list-style-type: none"> o Preserve forest
<i>Thomomys bulbivorus</i>	Canas pocket gopher	SOC	Grassy areas, pastures, roadsides, agricultural lands	<ul style="list-style-type: none"> o Field 	<ul style="list-style-type: none"> o Preserve field habitat
Fish					
<i>Oncorhynchus mykiss</i> *	Steelhead	FT		<ul style="list-style-type: none"> o Stream 	<ul style="list-style-type: none"> o Protect existing trees within 100 feet of creek o Plant shrubs and trees where to expand the vegetated buffer along the creek

Sources:

- Csuti, B., and coauthors. 1997. The Atlas of Oregon Wildlife. Oregon State University Press, Corvallis, Oregon.
- Leonard, W. P., H.A. Brown, L.L.C. Jones, K. R. McAllister, and R. M. Storm. 1993. Amphibians of Washington and Oregon. Seattle Audubon Society, Seattle, Washington.
- Maser, C. 1998. Mammals of the Pacific Northwest from the coast to the High Cascades. Oregon State University Press, Corvallis, Oregon.
- NatureServe. 2002. An on-line encyclopedia of life. <http://www.natureserve.org/explorer/>. Accessed March 21, 2003.
- ORNHP (Oregon Natural Heritage Program). 2001. Rare threatened and endangered plants and animals of Oregon. Oregon Natural Heritage Program, Portland, Oregon.
- Storm, R. M., and W. P. Leonard. 1995. Reptiles of Washington and Oregon. Seattle Audubon Society, Seattle, Washington.

*Documented by ORNHP as being present near the study area.

C: Candidate for listing under ODA (Oregon Department of Agriculture)

FC: Federal candidate for listing

FT: Federally listed as threatened

ONHP List 1: threatened with extinction or presumed to be extinct throughout their entire range

ONHP List 2: threatened with extirpation or presumed to be extirpated from Oregon

ONHP List 3: may be threatened or endangered in Oregon or throughout their range, but more data are needed

SOC: Federal species of concern

SC: State candidate

SU: State rank unknown

SV: State vulnerable species

Wildlife/Habitat Analysis *continued***Plants**

Scientific Name	Common Name	Status	Habitat Type	Known in Willamette Valley? ¹	Known in Washington County? 1	Habitat Present in Project Area
<i>Aster curtis</i>	White-topped aster	SOC	Grassland lowlands	Yes	No	Fields
<i>Carex comosa</i>	Bristly sedge	ONHP List 2	Marshes, lakeshores, wet meadows	Yes	No	Wetland, wet pockets in field
<i>Castilleja levisecta</i>	Golden paintbrush	LT	Open grasslands below 300 feet	Yes	No	Field
<i>Cimicifuga elata</i>	Tall bugbane	ONHP List 1	Mature, mesic coniferous or mixed forests	Yes	No	Forest
<i>Delphinium leucophaeum</i>	White rock larkspur	SOC	Open ground, moist low meadows, fencerows and ditches. 125 – 250 ft	Yes	Yes	Field, especially wet pockets
<i>Erigeron decumbens</i> var. <i>decumbens</i>	Willamette daisy	LE	Grasslands	Yes	No	Fields
<i>Horkelia congesta</i>	Shaggy horkelia	SOC	Open sandy or rocky flats to open woods	Yes	Yes	Fields, forest
<i>Lomatium bradshawii</i>	Bradshaw's lomatium	LE	Seasonally wet prairie and grassland	Yes	No	Wet pockets in field
<i>Montia howellii</i>	Howell's montia	C	Moist lowlands	Yes	No	Wetland, wet pockets in field,
<i>Polygonum punctatum</i>	Water smartweed	ONHP List 3	Moist places	Yes	No	Wetland, stream, slough
<i>Pyrrocoma racemosa</i> var. <i>racemosa</i>	Racemose pyrocoma	ONHP List 2	Meadows, open places; Willamette Valley	Yes	No	Field
<i>Rorippa columbiae</i>	Columbia cress		Margins of bodies of water inundated during the growing season	Yes	No	Stream, wetland, slough
<i>Sidalcea campestris</i>	Meadow sidalcea		Dry fields, fencerows, roadsides	Yes	Yes	Fields
<i>Sidalcea nelsoniana</i>	Nelson's sidalcea	LT	Open areas such as streams, roadsides, and meadows. Seasonally inundated.	Yes	Yes	Wetland, wet pockets in field, stream
<i>Verbena hastata</i>	Blue verbena		Moist low places, ditches	Yes	No	Wetland, stream, slough
<i>Wolffia borealis</i>	Dotted water-meal		Damp ground, swamps	Yes	No	Wetland, wet pockets within fields
<i>Wolffia columbiana</i>	Columbia water-meal		Fresh water	Yes	No	Wetland

Note: The species *Quercus garryana* (Oregon white oak) has no status, but as a plant community it is quite rare. The individuals on the Tigard Library site are especially large and should be preserved because of their uniqueness. PBS recommends that oak trees be protected to prevent further damage by wildlife.

Sources:

- WNHP (Washington Natural Heritage Program). 2003. Field guide to selected rare plants of Washington. <http://www.wa.gov/dnr/htdocs/fr/nhp/refdesk/fguide/htm/fgmain.htm>. Accessed March 21, 2003.
- Hitchcock, C. L., and A. Cronquist. 1976. Flora of the Pacific Northwest. Tenth Edition. University of Washington Press, Seattle, Washington.
- Pojar, J., and coauthors. 1994. Plants of the Pacific Northwest coast; Washington, Oregon, British Columbia and Alaska. Lone Pine Publishing, Vancouver, British Columbia, Canada.
- NatureServe. 2002. An on-line encyclopedia of life. <http://www.natureserve.org/explorer/>. Accessed March 21, 2003.

¹ According to Oregon Natural Heritage Program, 2001.

First Public Meeting

On February 26, 2003 at 7:30 pm, the first of two public meetings was held at the Tigard City Hall. The team presented drawings showing existing site conditions and habitat types as well as a list of goals developed from the previous October 16, 2002 Library Site Public Meeting. The purpose of this initial public meeting was to solicit additional thoughts about program, concerns about site development, or other ideas that could affect the direction of the Master Planning effort. Although public turnout at this initial meeting was low, many constructive comments and suggestions resulted from this meeting.

Public comments and questions:

- Problem with trail connections across Hall Blvd. It cuts access to site
- Lots of existing native vegetation (trees and shrubs) on site which should be preserved.
- Nesting area in the floodplain should be preserved
- There was some confusion as to the total size of the site, whether or not the library site itself is included in the acreage for the park, and whether or not the forest is included in the site.
- If the streambank is regraded, will existing trees and shrubs be removed? Regrading should be done with as little impact on existing trees and shrubs as possible.
- Species of significance: frog, turtle may use site
- Was there American Indian usage of the site?
- Some areas should have no public use, just habitat, especially where sensitive species are concerned.
- Keep trails away from ponds as much as possible.
- More signage: unique habitats, preservation, no disturbance. Could utilize children's art.
- Education opportunities, links to livability.
- Volunteers, slide shows, tours on site, bird walks.
- Existing house could be used as a staging point to speak to areas on the north side of the site, the ponds and backwaters
- Connections need to be made to the library itself
- Do we have funding for trails?
- Mix of hard surfacing and soft surfacing
- 50' setback from creeks
- Don't overdevelop trails; too much access means degradation of habitat.
- Trails with buffers, to avoid sensitive areas
- Would be nice to be able to see the creek from trails; bridges might be nice.
- Signage along trails, possibly designed in cooperation with schoolkids
- Improve the crossing at hall, possibly beneath the street
- Maybe run the paved trail on the east side of the creek rather than through the site itself, save the site for lower-impact trails and interpretive.
- Minimize paved trail by utilizing the parking lot.
- Trails with buffers – need to identify where the sensitive areas exist
- Be conservative in solutions
- Trails could go beneath street

First Public Meeting public attendance:

Drake Dunning

Ronald Leistra

Sue Beilke

Steve Andrews

Ralph Anzelloni

Martha Bishop

Second Public Meeting



On April 3, 2003 at 7:30 pm, the second public meeting was held at the Tigard City Hall. The purpose of this meeting was to present three alternative design concepts based on input from the previous Public Meeting as well as to solicit comments about those options or other ideas that

may need to be considered. The design team presented three distinct schemes showing the location of the primary connecting trail, secondary trails, and boardwalks. In addition, a number of locations were discussed regarding interpretive area locations and small group gathering areas. Additional buffer areas were shown; however detailed planting or stream bank improvements were not analyzed in detail. A brief summary of the options follows:

Scheme A

This scheme showed the primary trail very close to the library and a central gathering space at the base of the bowl area. Pathways in the northern portion of the site were minimized, but included a small boardwalk. A series of native plant gardens that integrate storm water from Hall Boulevard were integrated into the plan as well as an overlook on the east edge of the site.

Scheme B

This scheme showed the primary trail crossing Fanno Creek toward the east end of the site. Secondary trails create a series of arc-shaped paths that terminate in various overlook conditions near water. The northern section of the site includes a longer boardwalk. The storm water runoff from Hall Boulevard is treated in a more structured series of channels. The larger gathering/interpretive space is located to the east of the open meadow “bowl”.

Scheme C

This scheme showed the primary trail crossing the creek immediately from the north and maintaining a close proximity to the proposed library. An optional future path was shown branching off the main path toward the eastern forest area in anticipation of an alternate path connection that was under consideration further to the south. To the north, a gathering space was developed that integrates a water garden that is connected to the backwater slough (see illustration). In addition, secondary pathways venture further to the east in the northern section.

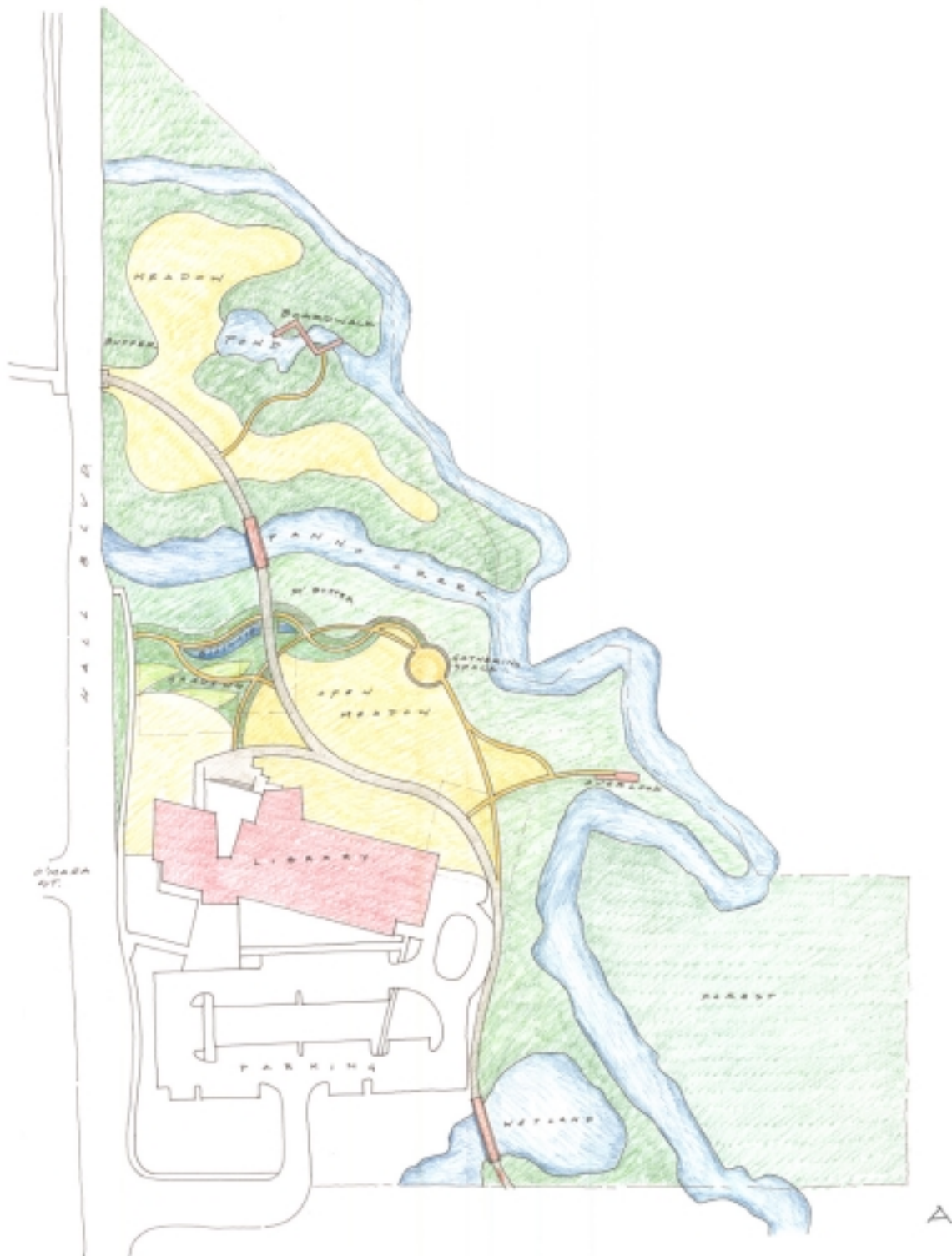


preferred diagram from second public meeting



Scheme C gathering area

Second Public Meeting *continued*



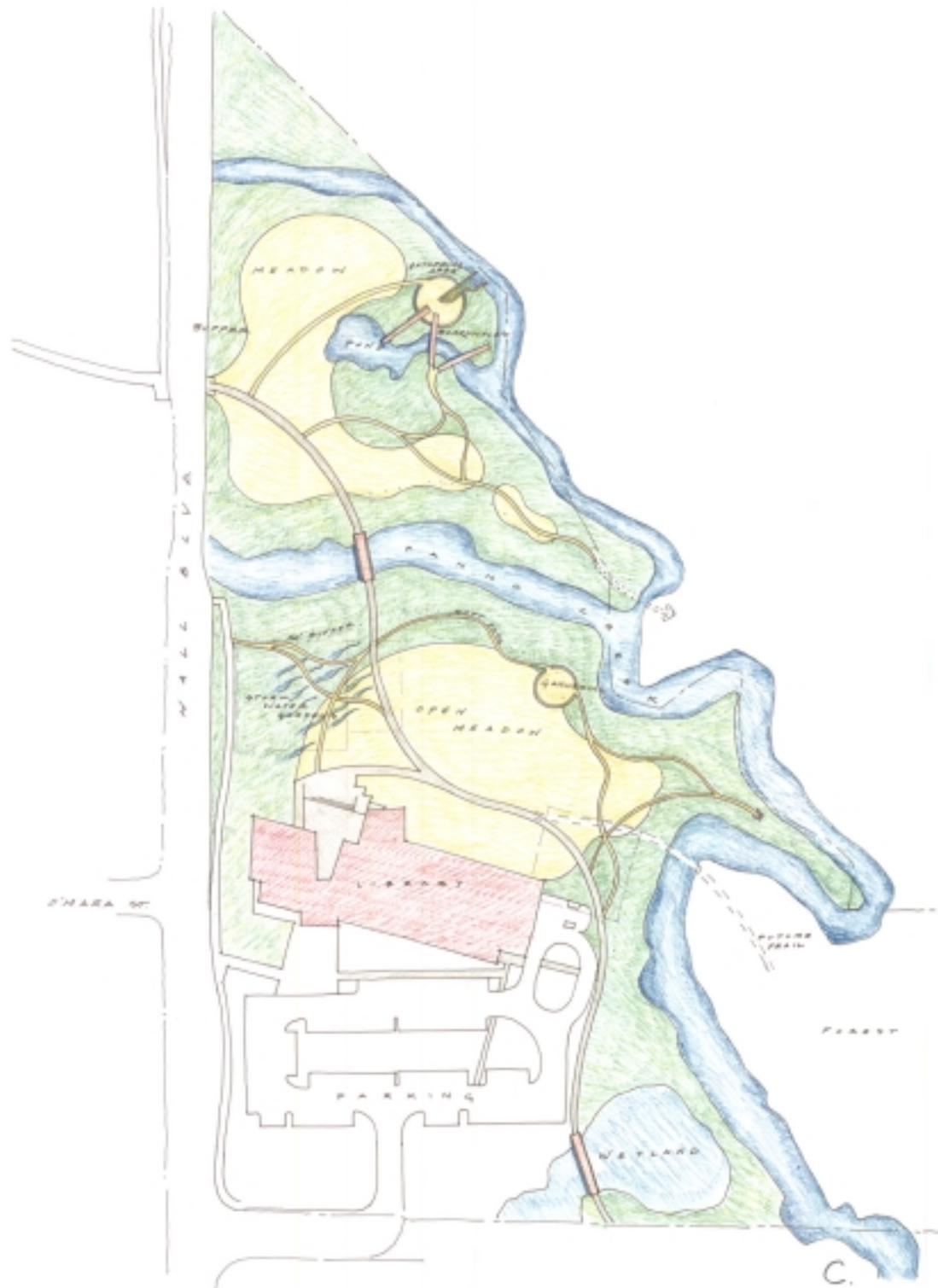
Scheme A

Second Public Meeting *continued*



Scheme B

Second Public Meeting *continued*



Scheme C

Second Public Meeting *continued*

Public comments and questions:

- Some picnicking is desirable – promoting positive activity in the park reduces elicit behavior.
- Hardscape path alignment should be further from Library (Scheme B preferred).
- Changes to Hall Street biofiltration swale should not include moving within future building pad.
- Team should evaluate potential runoff problems from adjacent bus parking area to the north of project area.
- Creek crossing should occur as close to Hall Blvd as possible (Schemes A & C preferred)
- Look at crossing Fanno Creek along Hall Blvd to prevent disturbance of turtle habitat on northern section of site.
- Some don't prefer introducing bike traffic along Hall Blvd for safety reasons. May require short term improvements to bridge for access and ADA improvements.
- Minimize extent of soft trails, especially on Schemes B & C. Find essential trail movement – don't try to do too much on such a small site.
- Prefer gathering on library site on Scheme B.
- Some preferred gathering space on Scheme A.
- Soft paths don't need to be looped.
- Like boardwalks to keep people from moving into sensitive areas.
- Some people like loops for safety and visual interest – more variety.
- Could introduce fence to prevent dogs and people from entering turtle habitat.
- It is important to give people educational opportunities near pond.
- Need connection from hardscape trail to Hall Blvd on Library side of creek to allow connection to front area bicycle parking.

A quick sketch was developed to illustrate a fourth option for the primary trail alignment (see page 13). This allowed the trail crossing of Fanno Creek to occur toward the western edge of the site away from sensitive habitat and also allowed the trail to stay as far from the library as possible to preserve the bowl-shaped meadow.

Second Public Meeting public attendance:

Mary Loofbourow

Ronald Leistra

Sue Beilke

John Frewing

Sue Kasson

Mike Davidson

Mark Mahon

Final Concept

As a result of the two public meetings a final Master Plan drawing was completed. The plan is a culmination of planning efforts by the Master Plan consultant team members and input from interested citizens and City staff. The plan strikes a balance between the programmatic needs of the park as a linear greenway system and the protection of the natural resources found on the site. It incorporates the sketch generated at the end of the last meeting and reduces the number of secondary pathways while still maintaining access to some habitat areas for educational and interpretive programs.

Primary Trails

A primary paved trail connects the site from north to south to the existing Fanno Creek Greenway Trail system as it winds down from the north near the existing City Hall Building and existing Library. The trail crosses Hall Boulevard to the north and immediately crosses Fanno Creek to avoid potential sensitive turtle habitat near the northern pond. The trail wraps around the edge of the natural bowl area below the proposed library and directly adjacent to the edge of the 50' river setback. The trail then heads to the south and crosses the wetland with a boardwalk before connecting with the adjacent property to the south. The decision to keep the primary trail on the west side of Fanno Creek was made to avoid the sensitive habitat areas of the forest on the east.

The trail will need to accommodate two-way pedestrian and bicycle traffic. The minimum acceptable width for a small multi-modal path is 10-feet and is consistent with the existing greenway trail. The surfacing should be asphalt to match the existing greenway trail, but could be designed using permeable asphalt to allow water infiltration.

Secondary Trails

One important function of the greenway trail is its connectivity to adjacent land uses. Access between the proposed library and the greenway trail provides opportunities for library programs to expand into the habitat areas of the park. A 5-foot asphalt trail will provide a connection on the north side of the library to the sidewalk on the Hall Boulevard right-of-way to allow bicycle access to the parking areas on the south side of the building.

Soft Trails

A third level of trail development allows access to informal areas such as gathering spaces, interpretive areas or special garden areas. These paths are 4-feet wide and are made of (fully accessible) fine crushed gravel.

Trail Crossing at Hall

Funding is currently being secured for a signalized trail crossing at Hall Boulevard. Trail crossings should visually indicate the presence of pedestrian activity and could include bollards or stone pillars to mark their presence along the roadway and prevent vehicular access. An 8-foot wide refuge island is under consideration at the centerline of Hall Boulevard and could serve as a visual indicator of pedestrian movement. Details of standard marking elements are available through the Metro Regional Parks and Greenspaces program.

A hand-drawn site plan map showing a proposed development area. The map includes a river labeled "PARKER CREEK" flowing through it. A road on the left is labeled "WALTON BLVD". A red building is labeled "LIBRARY". Other areas are labeled "MEADOW", "OPEN MEADOW", "GARDEN", "PARKING", "FIELD", and "MOUND". A north arrow is located at the bottom right.

City of Tigard, Oregon

April 21st, 2003

Final Concept *continued*

Bridges

The single bridge crossing on the north end of the site provides opportunities for directly viewing the river. The actual span needed to cross the river with a bridge will need to be determined with additional survey work, but appears to be approximately 50-feet in length. From a design standpoint, the bridge is a wonderful opportunity for a unique expression of materials or some of the unique qualities of the site.

Boardwalks

A boardwalk is indicated on the north side of the site providing a connection from the primary trail to the backwater pond. Because this is an area of potential turtle-nesting habitat, a boardwalk is used to encourage visitors to stay out of the meadow and habitat areas. The boardwalk terminates at the pond and could provide seating areas beneath the large existing oak trees as well as opportunities for interpretive signs that describe the local history and ecology. The boardwalks should be 5-feet in width and made of wood. The boardwalk providing access over the wetland area could also be incorporated with interpretive signs or seating. This boardwalk should be 10-feet wide to match the primary trail width.

Interpretive and Gathering Areas

Both the boardwalk at the pond and a unique area to the northeast of the proposed library site provide interesting opportunities for interpretive and gathering. The larger gathering space could be an area of crushed stone paving and a series of stone walls that provide both group and individual seating areas. The walls provide a physical barrier to prevent disturbance of naturalized areas, but provide a sense of permanence and durability to the space. Additional opportunities exist in these areas for interpretive signage or art display, for example birdhouses made by local school or community organizations.

Bowl

The open meadow area just north of the proposed library will be left as open space with a small space at the center of its bowl-shaped topography. This small space could be defined by a low stone wall and could serve as a focal point for group gatherings or perhaps just a place to pull off the primary trail during a bike ride.

Final Concept *continued*

Stream Restoration and Buffer Planting

Restoration opportunities in and around Fanno Creek could offer long term water quality improvement, improved in-water habitat, and improved plant and animal habitat along its edges. Currently Fanno Creek is severely undercutting its banks. Its steep sides lack opportunities for all but minimal vegetation to take hold. This channeling effect of the stream and lack of in-water vegetation to slow down stream flows has compounded erosion problems and has created a lack of space for water during flood events.

Regrading the stream bank to flatten the stream profile would help slow water flows, provide more flood storage capacity, and provide areas for planting improvements. Stabilization of the creek channel may need to be considered along the entire creek, especially where stream currents tend to erode banks. Because there are some existing trees along the bank, an effort should be made to incorporate those plantings into the grading concepts. Smaller trees could be temporarily removed and replanted. Redeveloping the creek channel will also provide opportunities to remove invasive plant species.

Regardless of the extent of work within Fanno Creek itself, Clean Water Services will likely require additional planting within the 50 foot buffer. As a condition of approval for the new library project, the south side of the Creek will be replanted using a mixture of native plant species. This work is being conducted independently of this Master Plan effort. Improved native planting efforts should also be considered around the backwater pond. Other planting restoration efforts or plans to remove invasive plant species could be coordinated through cooperation between the City and private organizations, such as Fans of Fanno Creek.

Visual Mitigation should be provided on the north end of the site to screen the existing bus parking area. Native evergreen trees that grow in excess of 30-feet will need to be planted along the north end of the site on either side of the backwater slough. Additional buffer planting of both native trees and shrubs could be provided along Hall Boulevard to provide spatial definition of the meadow area and visual and noise protection between the trail and street. Visual access at the trail crossing on Hall Boulevard will need to be considered when providing this additional buffer planting.

Signage

Wayfinding along the trail should be coordinated with efforts along the entire length of the Fanno Creek Greenway. A January 2003 report entitled "Fanno Creek Greenway Trail Action Plan" available through Metro Regional Parks and Greenspaces contains invaluable information regarding trail signage templates. (http://www.metro-region.org/library_docs/parks_green/fannoplan.pdf)

Additional signage should be considered giving directions to the library from the primary trail as well as interpretive signs in various locations in the park. Signs indicating the possible presence of nesting turtles should be implemented when the primary trail is constructed.

On April 23, 2003 the Tigard Planning Commission voted to recommend to City Council approval of the Master Plan

Final Concept *continued*Planning Commission Meeting

On April 23, 2003 the design team presented the final Master Plan to the Tigard Planning Commission. The Tigard Planning Commission voted to recommend to City Council approval of the Master Plan. One question was raised regarding the ability for police monitoring of the park from Hall Boulevard. A subsequent meeting with the Police Department resulted in approval of the plan without changes.

Overseeing Agencies for work in Fanno Creek

The approval process for work along Fanno Creek or adjacent wetlands will depend upon the extent of work proposed for each phase of development. Grading in excess of 50 cubic yards within the zone of ordinary high water typically triggers a joint application process through the Army Corps of Engineers and the Division of State Lands. The application process can take as little as 45-60 days under the Nationwide Permitting Process or 120 days under Individual Review, depending upon the extent of work. Both agencies review the application materials individually and look at the location and type of impacts that will occur (e.g. removal of vegetation or impact on river flow or flooding) and what mitigation may be required. Often, the land owner will be required to monitor mitigation efforts for five years after completion of work.

Oregon Division of Fish and Wildlife will review impacts on riparian vegetation and habitat under the DSL review process. The presence of endangered species will require review by NOAA Fisheries under the Army Corps of Engineer review process.

Documents required for these reviews will include earthwork design and cut/fill calculations, a site plan showing extent of proposed improvements, determination of “mean high water” and “ordinary high water”, cross sectional views, planting plans, details, and other information deemed necessary to effectively evaluate the potential impacts and mitigation measures of the project. Because project review through both the Corps of Engineers and DSL are analyzed on a case-by-case basis, additional information may be requested depending upon the level of environmental impact. The proposed improvements illustrated within this Master Plan will likely trigger this approval process, but are likely to benefit water quality and habitat along Fanno Creek. We anticipate likely approval of these improvements assuming a complete submittal package.

Clean Water Services will review all work within the 100-year flood plain and specifically within the 50-foot buffer along Fanno Creek and the wetlands.

Contacts:

Division of State Lands
Collin MacLaren
(503) 378-3805

U.S. Army Corps of Engineers
Cathy Harris
(503) 808-4387

Clean Water Services
Phone: (503) 846-3553

Final Concept *continued*

Library Project Conditional Use Permit

The conditions of approval required after an April 7, 2003 public hearing before the City of Tigard Land Use Hearings Officer requires construction of the Fanno Creek Greenway Trail. The following language is an edited summary of those portions which directly relate to the Fanno Creek Park Master Plan”

THE FOLLOWING CONDITIONS SHALL BE SATISFIED PRIOR TO ISSUANCE OF THE SITE AND/OR BUILDING PERMITS:

Submit to the Planning Department (Brad Kilby, 639-4171, ext. 388) for review and approval:

- a letter from a registered professional engineer that indicates that any encroachments made by this proposal will not increase the flood levels during the base flood discharge.
- 10. Prior to the issuance of building permits for the building, the applicant shall show that it is making a continuing, diligent, good faith effort to identify an alignment for a pedestrian/bicycle path along Fanno Creek that will not be below the elevation of an average annual flood.

THE FOLLOWING CONDITIONS SHALL BE SATISFIED PRIOR TO FINAL BUILDING INSPECTION:

Submit to the Planning Department (Brad Kilby, 639-4171, ext. 388) for review and approval:

- 21. Prior to the issuance of a final occupancy permit, the applicant shall provide adequate financial assurances, in the form of a cash deposit, a bond or inclusion of the project on a city 5-year capital improvements project list, to ensure construction of that portion of the Fanno Creek Greenway Trail that crosses the property. No portion of the trail shall be below the elevation of an average annual flood.

Cost Estimate

ORDER OF MAGNITUDE COST INFORMATION

					<i>Unit</i>	<i>Unit Cost Range</i>
Site Work						
	Streambank Restoration (including regrading bank, stabilization, erosion control, revegetation, habitat				lf of bank	\$100-\$200
	Buffer Planting (excluding streambank planting)				sf	\$1.00-\$2.00
	Meadow Restoration				sf	\$0.15-\$0.25
	Special Garden Planting				sf	\$3.00-\$4.00
	Trees				ea	\$200-\$300
	Primary Path (10' wide AC)				lf	\$15-\$20
	Secondary Path (5' wide bark or gravel)				lf	\$7.50-\$10
	8 foot-wide Wood Boardwalk/Overlook				lf	\$175-\$225
	Pedestrian Bridge (10' wide wood and steel)				ls	\$60,000-\$85,000
	Stone Walls at Gathering Areas				lf	\$130-\$160
	Fencing				lf	\$30-\$60
	Interpretive Signs				ea	\$100-\$2,000
	Benches				ea	\$1,000-\$1,200
	Picnic Tables				ea	\$1,000-\$1,200

AGENDA ITEM # _____
FOR AGENDA OF May 27, 2003

**CITY OF TIGARD, OREGON
COUNCIL AGENDA ITEM SUMMARY**

ISSUE/AGENDA TITLE: SW Mapleleaf Street and SW Oak Way Street Vacation (VAC2002-00002)

PREPARED BY: Mathew Scheidegger **DEPT HEAD OK** _____ **CITY MGR OK** _____

ISSUE BEFORE THE COUNCIL

Should the City Council vacate an approximately 26,258 square foot portion of public right-of-way commonly known as SW Mapleleaf Street and a 9,716 square foot strip of right-of-way south of SW Mapleleaf Street better known as SW Oak Way?

STAFF RECOMMENDATION

It is recommended that Council vacate a 26,258 square foot portion of public right-of-way commonly known as SW Mapleleaf Street, and the 9,716 square foot strip known as SW Oak Way.

INFORMATION SUMMARY

In the City vacation process there are two ways of initiating the vacation of streets, easements and other public dedicated areas. An applicant may file a vacation petition with the City Council, which initiates a vacation by passing a Resolution to schedule a formal public hearing to consider such requests. The second option is for an applicant to file a petition with the Planning Commission requesting a vacation. This requires signatures of all abutting property owners and of the owners of two-thirds of the properties affected by the vacation. The Planning Commission then makes a recommendation to the City Council based on compliance with the Comprehensive Plan. The City Council initiated the vacation on April 18, 2003.

Currently, Metzger School is built over a portion of Mapleleaf Street. The Tigard - Tualatin School District is going to replace the existing Metzger Elementary School with a new school at the same location. The School District is requesting to vacate 26,258 square feet of SW Mapleleaf Street and an approximately 9,716 square foot portion of right-of-way formerly known as SW Oak Way, which is a 14-foot-wide unimproved area running east to west, south of the School District property. There are no existing utilities in or along either right-of-ways to be vacated as shown in **Attachment 1, Exhibit C**. Portions of SW Mapleleaf have previously been vacated in 1978 (Ordinance No. 78-182). This ordinance vacated Mapleleaf, east of SW 90th Avenue. Ordinance No. 89-19, vacated approximately 3,825 square feet of SW 93rd Avenue and SW Mapleleaf, west of SW 90th Avenue in order to construct the Lincoln V office building and parking structure.

Chapter 18.810.040.B.1 of the Tigard Development Code states, "The perimeter of blocks formed by streets shall not exceed 2,000 feet measured along the right-of-way line except: **a.** Where street location is precluded by natural topography, wetlands or other bodies of water, or pre-existing development; or **b.** For blocks adjacent to arterial streets, limited access highways, collectors or railroads. **c.** For non-residential blocks in which internal public

circulation provides equivalent access. However, Chapter 18.810.040.B.2 states that "Bicycle and pedestrian connections on public easements or right-of-ways shall be provided when full street connection is exempted by B.1 above. Spacing between connections shall be no more than 330 feet, except where precluded by environmental or topographical constraints, existing development patterns, or strict adherence to other standards in the code." These standards are to provide connectivity and were adopted through the Transportation Systems Plan. With the vacation of Mapleleaf Street, the perimeter of the block will be approximately 2,600 feet. If the Oak Way portion is also vacated, the perimeter will be approximately 3,100 feet. When the School District submitted for conditional use approval in order to build the Metzger Elementary School, they requested a variance to the block length standard. The adjustment was deemed unnecessary based on findings that the criteria could be met by providing a pedestrian connection within 325 feet of the SW Locust Street right-of-way to the north. At the public hearing for Conditional Use approval on April 28, 2003 to replace the Metzger Elementary School, the Hearings Officer approved the applicant's proposal to locate a pedestrian pathway 325 feet from SW Locust Street. The location of the proposed pedestrian path satisfies the spacing standard, which requires connections to be no more than 330 feet.

Based on the Hearings Officer's finding, which ensures the block length standard to be met, Staff is satisfied that the Oak Way right-of-way will not be required to meet the block length standard. Therefore, Staff has no objection to either right-of-ways being vacated.

OTHER ALTERNATIVES CONSIDERED

Take no action at this time.

VISION TASK FORCE GOAL AND ACTION COMMITTEE STRATEGY

Not applicable.

ATTACHMENT LIST

Attachments:

Attachment 1: Letter Requesting Initiation of the Vacation

Exhibit A: Plat Map

Exhibit B: Aerial Photo

Exhibit C: Utilities Map

Attachment 2: Proposed Ordinance

Exhibit A: Mapleleaf Street Legal Description

Exhibit B: Mapleleaf Street Site Plan

Exhibit C: Unnamed strip of public right-of-way formerly known as SW Oak Way
Legal Description

Exhibit D: Unnamed strip of public right-of-way formerly known as SW Oak Way
Site Plan.

FISCAL NOTES

There are no direct fiscal impacts as a result of this request as all fees have been paid by the applicant.



Tigard - Tualatin School District 23J
Larry Hibbard Administration Center
6960 SW Sandburg Street
Tigard, Oregon 97223
503-431-4000 • fax 503-431-4047
www.ttsd.k12.or.us

December 27, 2002

Mayor Griffith
Members of Tigard City Council
City of Tigard
13125 SW Hall Boulevard
Tigard, Oregon 97223

Dear Mayor Griffith and Members of the Tigard City Council:

The following materials are provided to request a City-initiated street vacation of the following roadways located adjacent to and through properties owned by the Tigard-Tualatin School District. The attached Plat Map (Exhibit **A**) illustrates the location of the proposed vacations:

- A portion of Mapleleaf Street between Monroe and Lincoln (previously vacated streets)
- A portion of SW Oak Way, a 14 foot right-of-way south of Mapleleaf Street between Monroe and Lincoln (previously vacated streets)

The Tigard-Tualatin School District (the District) is requesting that the City Council bring forward these street vacations for the following reasons:

1. As shown on the Plat Map (Exhibit **A**), portions of the right-of-ways for both of these streets have already been vacated. The western portion of Mapleleaf Street was vacated in 1979; with the eastern portion of the Mapleleaf Street right of way vacated in 1988.
2. As shown on the Aerial Photo (Exhibit **B**), a portion of the Mapleleaf Street right of way is already covered by a portion of the existing Metzger Elementary School, constructed in the mid 1970's. This construction was approved as a Conditional Use by Washington County in 1972.
3. The District is interested in replacing the Metzger Elementary School with a new school at the same location. Development of a new school of sufficient size to meet the needs of the School District with adequate open space, amenities, and parking is extremely difficult unless these rights-of-way are vacated. In accordance with our discussions with City of Tigard Planning staff, the District will be applying concurrent to this request for a Conditional Use application for this development.
4. As shown on Exhibit **C**, Utilities Maps, there are no existing utilities in or along either right-of-way that we are requesting to be vacated.

SECTION 35 T1S, R1W W.M.

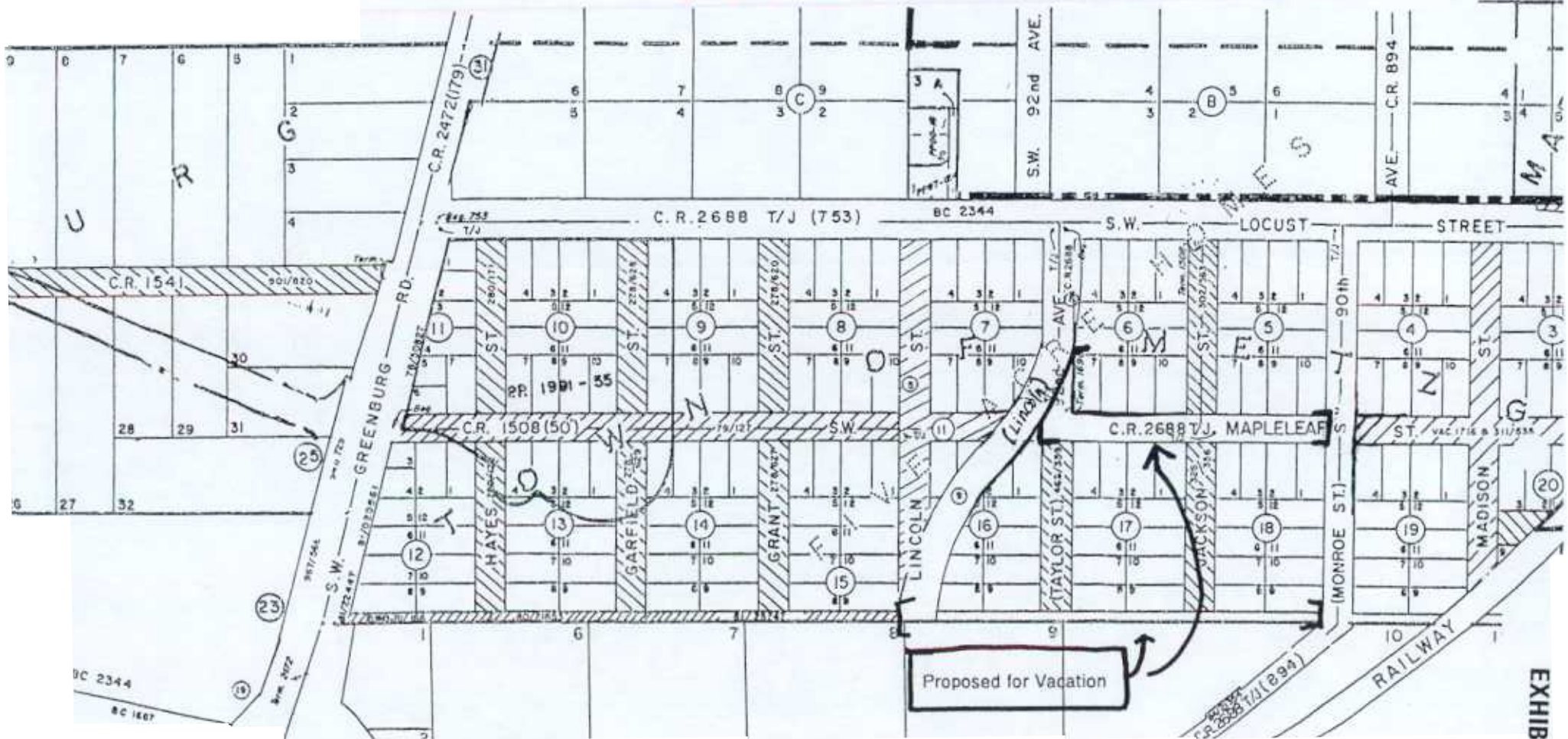
SCALE: 1" = 200'

Previously Vacated



Street Vacation Request []

LEHMAN ACRE TRACTS S.W. 1/4



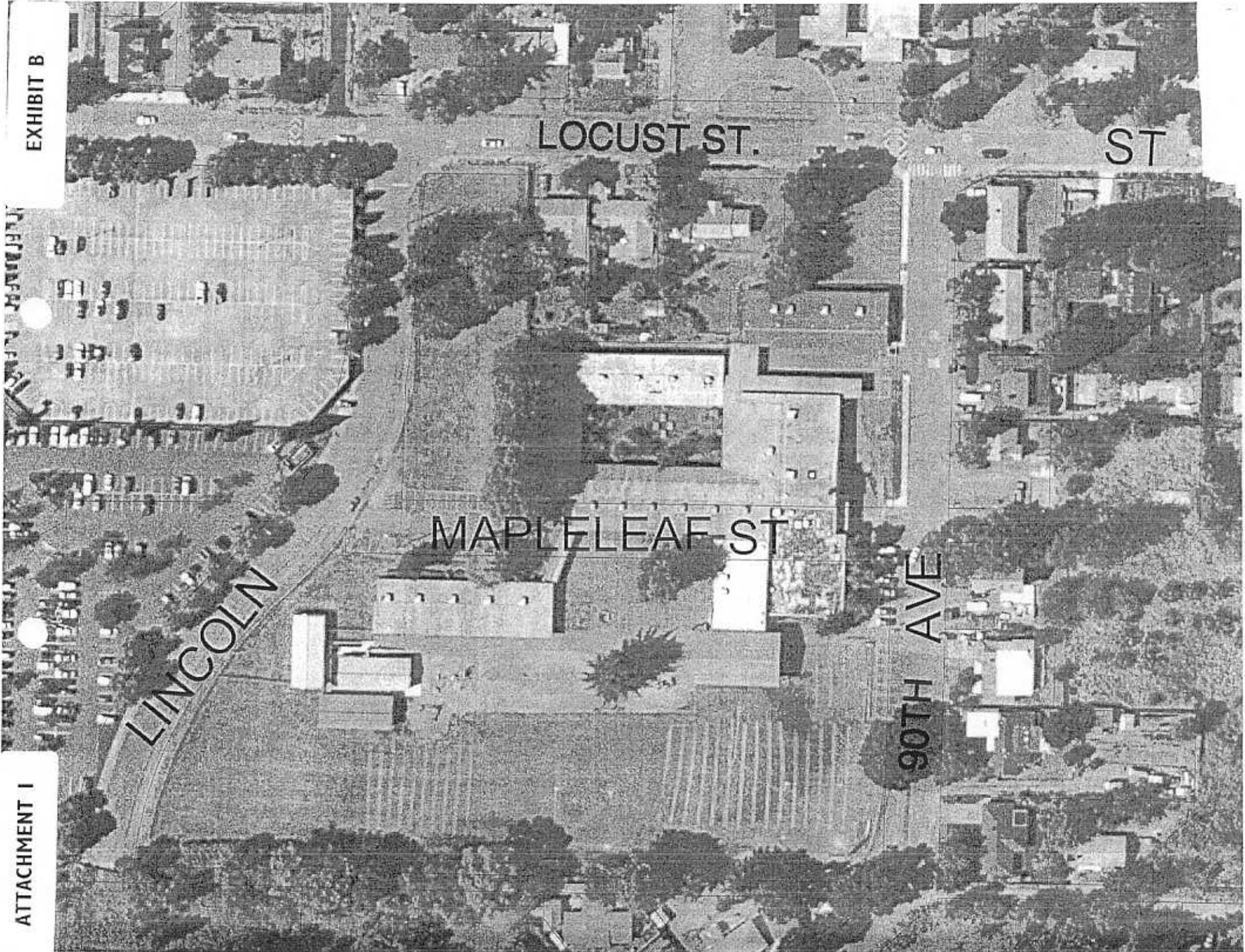
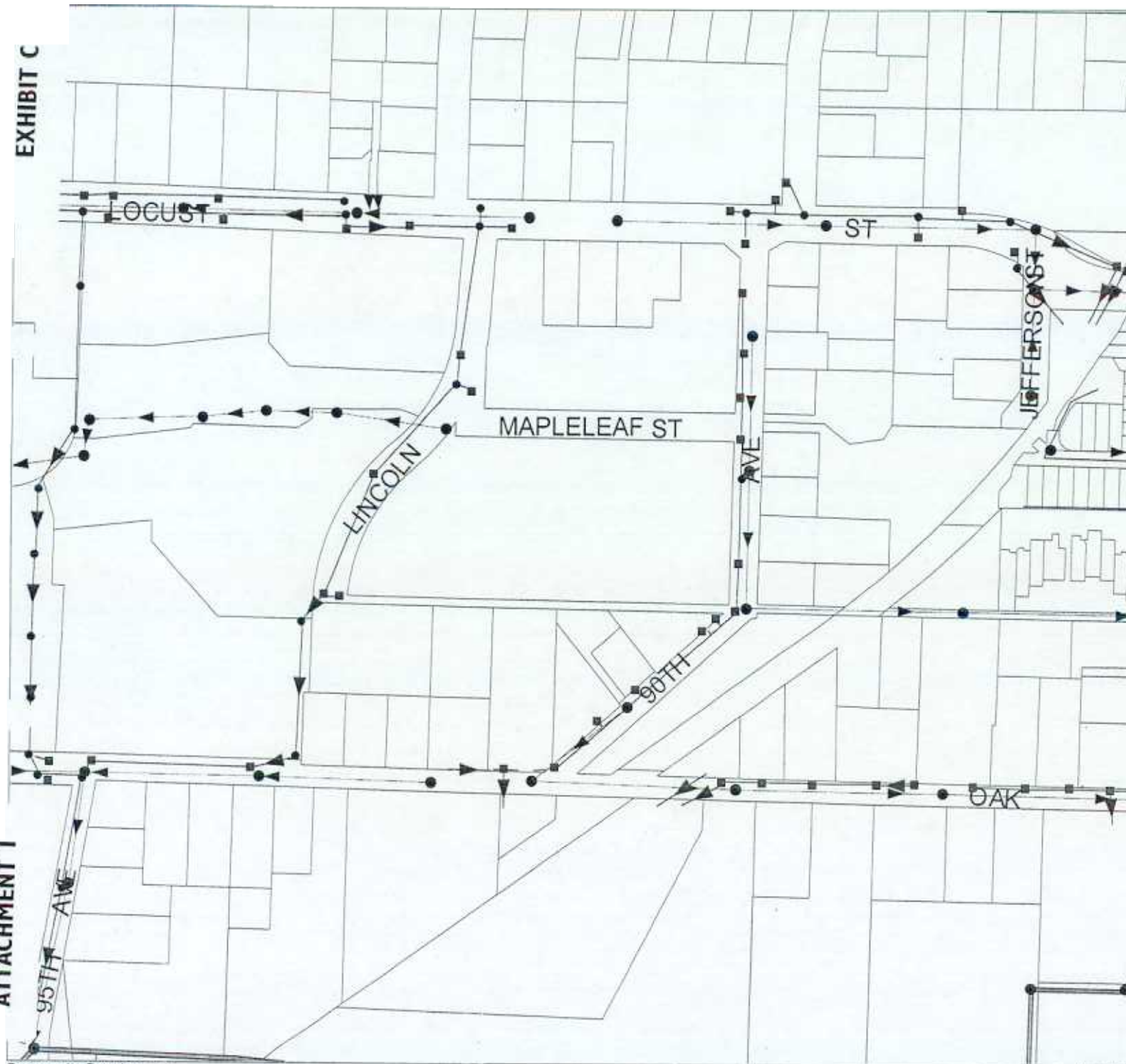


EXHIBIT C

ATTACHMENT I



CITY of TIGARD

GEOGRAPHIC INFORMATION SYSTEM

VICINITY MAP

=====

VAC2002-00002

=====

Utilities Map



N

0 100 200 300 Feet

1"= 242 feet



Information on this map is for general location only and should be verified with the Development Services Division.
13125 SW Hall Blvd
Tigard, OR 97223
(503) 639-4171
<http://www.ci.tigard.or.us>

ORDINANCE NO. 03-

AN ORDINANCE CONCERNING THE VACATION OF AN APPROXIMATELY 26,258 SQUARE FOOT PORTION OF PUBLIC RIGHT-OF-WAY BETTER KNOWN AS SW MAPLELEAF STREET AND AN APPROXIMATE 9,716 SQUARE FOOT STRIP OF RIGHT-OF-WAY FORMERLY KNOWN AS SW OAK WAY, WHICH LIES SOUTH OF SW MAPLELEAF STREET (VAC2002-00002).

WHEREAS, the approximate 26,258 square foot portion of the public right-of-way had previously been dedicated to the public; and

WHEREAS, the applicant has requested that the City of Tigard vacate an approximate 26,258 square foot portion of public right-of-way as described in Attachment 2, Exhibit "A" and shown in Attachment 2, Exhibit "B" better known as SW Mapleleaf Street; and

WHEREAS, the approximately 9,716 square foot portion of land had previously been dedicated to the public; and

WHEREAS, the applicant has also requested that the City of Tigard vacate an approximate 9,716 square foot portion of public right-of-way, as described in Attachment 2, Exhibit "C" and shown in Attachment 2, Exhibit "D".

WHEREAS, the said portion of public right-of-way may no longer be necessary; and

WHEREAS, the Tigard City Council finds it appropriate to vacate the requested public right-of-way vacation.

NOW, THEREFORE, THE CITY OF TIGARD ORDAINS AS FOLLOWS:

SECTION 1: The Tigard City Council hereby initiates a request for the vacation of an approximately 26,258 square foot portion of public right-of-way commonly known as SW Mapleleaf Street, as more particularly described and shown in **Attachment 2, Exhibits "A" and "B"** and a 9,716 square foot portion of public right-of-way particularly described and shown in **Attachment 2, Exhibit "C" and "D"** and by reference, made a part hereof.

SECTION 2: This ordinance shall be effective 30 days after its passage by the Council, approval by the Mayor, and posting by the City Recorder.

PASSED: By _____ vote of all Council members present after being read by
number and title only, this _____ day of _____, 2003.

Catherine Wheatley, City Recorder

APPROVED: By Tigard City Council this _____ day of _____, 2003.

Jim Griffith, Mayor

Approved as to form:

City Attorney

Date

TIGARD-TUALATIN SCHOOL DISTRICT
WASHINGTON COUNTY, OREGON
RIGHT OF WAY VACATION
JANUARY 7, 2003
SHEET 1 OF 2

LEGAL DESCRIPTION:

PORTIONS OF THOSE RIGHT OF WAYS DEDICATED IN THE PLAT OF "TOWN OF METZGER", WASHINGTON COUNTY PLAT RECORDS, AS SW MAPLE LEAF STREET AND SW TAYLOR STREET LOCATED IN THE NORTHEAST ONE QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE WILLAMETTE MERIDIAN IN THE CITY OF METZGER, WASHINGTON COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF LOT 10, BLOCK 5, SAID PLAT OF "TOWN OF METZGER", SAID POINT BEING ON THE WESTERLY RIGHT OF WAY LINE OF SW 90TH AVENUE (MONROE STREET) (25 FEET FROM THE CENTERLINE THEREOF);

THENCE LEAVING SAID WESTERLY RIGHT OF WAY ALONG THE NORTHERLY RIGHT OF WAY LINE OF SW MAPLE LEAF STREET (25 FEET FROM THE CENTERLINE THEREOF) SOUTH $89^{\circ}34'00''$ WEST, 449.54 FEET TO THE EASTERLY RIGHT OF WAY LINE OF SW TAYLOR STREET (25 FEET FROM THE CENTERLINE THEREOF);

THENCE ALONG SAID EASTERLY RIGHT OF WAY LINE NORTH $00^{\circ}29'26''$ WEST, 94.33 FEET TO THE EASTERLY RIGHT OF WAY LINE OF THAT CERTAIN EXCEPTED 60 FOOT WIDE STRIP OF LAND PER DEED DOCUMENT NO. 89-33482, RECORDED JULY 24, 1989, WASHINGTON COUNTY DEED RECORDS, BEING A PORTION OF REALIGNED SW 92ND AND 93RD AVENUES AS DEFINED IN SURVEY NUMBER 23508, WASHINGTON COUNTY SURVEY RECORDS;

THENCE SOUTHWESTERLY ALONG SAID EASTERLY RIGHT OF WAY LINE ALONG THE CURVE OF A 380.00 FOOT RADIUS CURVE CONCAVE TO THE NORTHWEST THROUGH A CENTRAL ANGLE OF $19^{\circ}29'23''$ (THE LONG CHORD BEARS SOUTH $22^{\circ}22'56''$ WEST, 128.64 FEET) AN ARC DISTANCE OF 129.26 FEET TO A POINT ON THE WESTERLY RIGHT OF WAY LINE OF SAID TAYLOR STREET;

THENCE LEAVING SAID EASTERLY RIGHT OF WAY LINE OF SAID SW LINCOLN STREET ALONG THE WESTERLY RIGHT OF WAY LINE OF SAID TAYLOR STREET SOUTH $00^{\circ}29'26''$ EAST, 25.76 FEET TO A POINT OF INTERSECTION OF SAID WESTERLY RIGHT OF WAY LINE AND THE WESTERLY PROJECTION OF THE SOUTHERLY RIGHT OF WAY LINE OF SAID SW MAPLE LEAF STREET;

THENCE EASTERLY ALONG SAID WESTERLY PROJECTION AND SAID SOUTHERLY RIGHT OF WAY LINE NORTH $89^{\circ}34'00''$ EAST, 499.54 FEET TO THE WESTERLY RIGHT OF WAY LINE OF SAID SW 90TH AVENUE;

THENCE ALONG SAID WESTERLY RIGHT OF WAY LINE NORTH $00^{\circ}29'26''$ WEST, 50.00 FEET TO THE POINT OF BEGINNING.

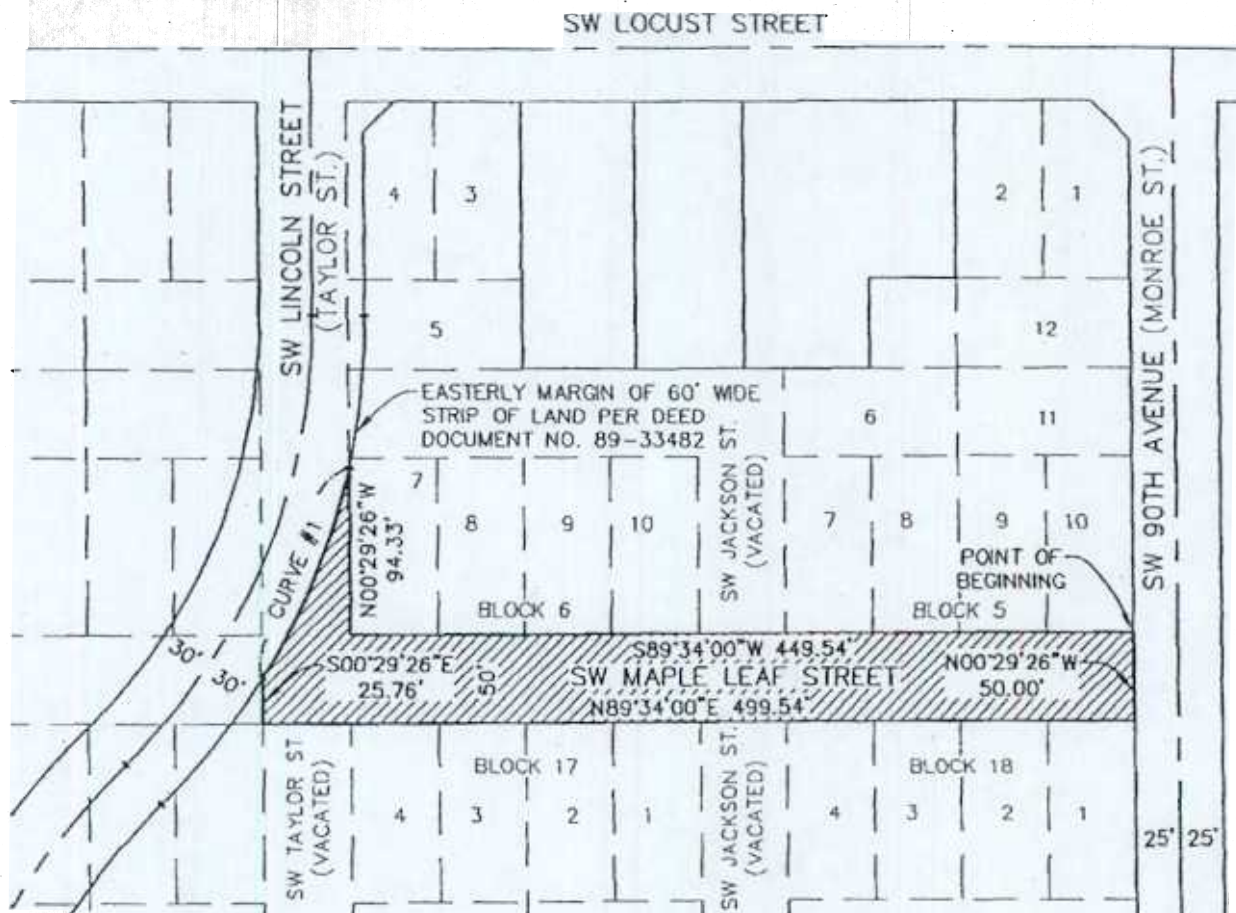
CONTAINING 26,258 SQUARE FEET OR 0.603 ACRES MORE OR LESS.

REGISTERED
PROFESSIONAL
LAND SURVEYOR

OREGON
NOV. 16, 1998
MICHAEL D. FRANK
53854

RENEWAL: 12/31/03

RIGHT OF WAY VACATION OF PORTIONS OF SW MAPLE LEAF AND SW TAYLOR STREETS
 WITHIN THE PLAT OF "TOWN OF METZGER" LOCATED IN THE NE 1/4 OF SECTION 35
 IN TOWNSHIP 1 SOUTH, RANGE 1 WEST, WILLAMETTE MERIDIAN
 CITY OF TIGARD, WASHINGTON COUNTY, OREGON
 JANUARY 7, 2003



CURVE #1
 $\Delta=19^{\circ}29'23''$
 $R=380.00'$
 $L=129.26'$
 $CH=S22^{\circ}22'56''W$
 $128.64'$



SCALE 1"=100'

JOB NO. TSD3039 SHEET 2 OF 2

W R G
 DESIGN INC.

5415 SW WESTGATE DR., PORTLAND, OREGON 97221

TEL (503) 419-2500

FAX: (503) 419-2600

PLANNERS ■ ENGINEERS ■ LANDSCAPE ARCHITECTS ■ SURVEYORS

TIGARD-TUALATIN SCHOOL DISTRICT
WASHINGTON COUNTY, OREGON
RIGHT OF WAY VACATION
DECEMBER 26, 2002
SHEET 1 OF 2

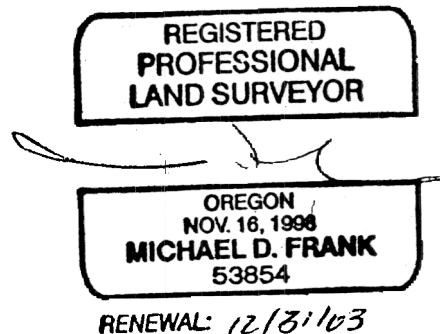
LEGAL DESCRIPTION:

PORTIONS OF THAT UNNAMED DEDICATED VARIABLE WIDTH RIGHT OF WAY IN THE PLAT OF "TOWN OF METZGER" LOCATED IN THE NORTHEAST ONE QUARTER OF SECTION 35, TOWNSHIP 1 SOUTH, RANGE 1 WEST OF THE WILLAMETTE MERIDIAN IN THE CITY OF METZGER, WASHINGTON COUNTY, STATE OF OREGON, BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

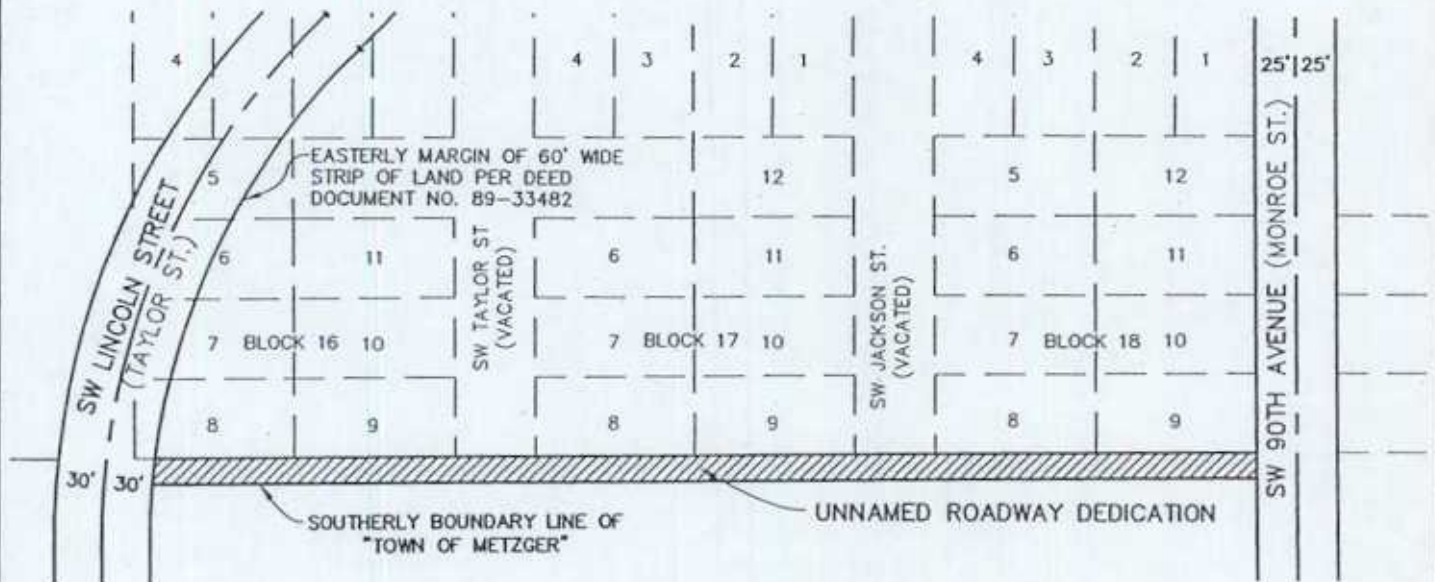
ALL OF THAT UNNAMED DEDICATED VARIABLE WIDTH RIGHT OF WAY LYING EASTERLY OF THAT EXCEPTED 60.00 FOOT WIDE STRIP OF LAND PER DEED DOCUMENT NO. 89-33482, RECORDED JULY 24TH, 1989, WASHINGTON COUNTY DEED RECORDS,

LYING NORTHERLY OF THE SOUTHERLY BOUNDARY LINE OF SAID PLAT OF "TOWN OF METZGER",

AND LYING WESTERLY OF THE WEST RIGHT OF WAY LINE OF SW 90TH AVENUE (MONROE STREET) (25 FEET FROM THE CENTERLINE THEREOF).



RIGHT OF WAY VACATION OF A PORTION OF AN UN-NAMED DEDICATED ROADWAY
 WITHIN THE PLAT OF "TOWN OF METZGER" LOCATED IN THE NE 1/4 OF SECTION 35
 IN TOWNSHIP 1 SOUTH, RANGE 1 WEST, WILLAMETTE MERIDIAN
 CITY OF TIGARD, WASHINGTON COUNTY, OREGON
 DECEMBER 26, 2002



SCALE: 1" = 120'

JOB NO. TSD3039 SHEET 2 OF 2

W R G
 DESIGN INC.

5415 SW WESTGATE DR., PORTLAND, OREGON 97221

☎ (503) 419-2500

FAX: (503) 419-2600

PLANNERS • ENGINEERS • LANDSCAPE ARCHITECTS • SURVEYORS